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ABSTRACT

The North Carolina End-of-Course Testing Program was established to provide student, school, and school system information about achievement in high school courses. It appears that more than 40 percent of a class of students and approximately 60 percent of Algebra I students take Algebra II. Each Algebra II student took a test containing one of four statistically equivalent 56-item cores and one of four different sets of 10 items during the final days of the school year. The average score on the 56-item core test was 36.2 or 64.6 percent correct. Performance on the core test differed by parental education, ethnic group, grade level in school, and anticipated final course grade. The select group of students taking Algebra II in the tenth grade had higher average scores than students at any other grade level. Average performance on the basic goals taught early in the course was higher than average performance on the more complex goals taught at the end of the course. Also, it appears that some areas of the curriculum need greater emphasis statewide. The appendix provides the performance in regions and school systems, student characteristics, and state percentile tables. (Author/YP)

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ABSTRACT

The North Carolina End-of-Course Testing Program was established to provide student, school, and school system information about achievement in high school courses. The first Algebra I End-of-Course Test was administered in 1985-86. Algebra II and Biology were added to the testing program in 1986-87 and U.S. History was added in 1987-88. Other high school courses will be added in future years.

The 36,414 students who took the Algebra II End-of-Course Test in 1987-88 were a subgroup of the high school population. School systems vary in the proportion of students that take Algebra II during their school career and in the proportion of students that take Algebra II at different grade levels. Algebra II is generally the third course in the mathematics sequence following Algebra I and Geometry. It appears that more than 40 percent of a class of students and approximately 60 percent of Algebra I students take Algebra II. Although students whose parents have no more than a high school education and black students appear to be underrepresented in Algebra II classes across the state, the proportion of Algebra II students that are black has increased.

Each Algebra II student took a test containing one of four statistically equivalent 56-item cores and one of four different sets of 10 items during the final days of the school year. The average score on the 56-item core test was 36.2 or 64.6 percent correct. Performance on the core test differed by parental education, ethnic group, grade level in school, and anticipated final course grade. Most of the students taking Algebra II in the tenth grade are on an accelerated course sequence which includes Algebra I in the eighth grade, Geometry in the ninth grade and Algebra II in the tenth grade. The select group of students taking Algebra II in the tenth grade had higher average scores than students at any other grade level. The standards for tenth-grade performance appear to be higher than the standards for other students.

Schools and school systems can identify strengths and weaknesses in their instructional programs by examining relative performance on the goals and objectives measured by the 264 items administered in 1988. Average performance on the basic goals taught early in the course was higher than average performance on the more complex goals taught at the end of the course. Also, it appears that some areas of the curriculum need greater emphasis statewide.

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NORTH CAROLINA END-OF-COURSE TESTING PROGRAM

ALGEBRA II - 1988

Introduction

North Carolina is in the process of developing end-of-course tests within several subject areas. The purposes of the tests are twofold:

1. The tests will provide information about each individual student's performance relative to that of other students in North Carolina.

2. The tests will provide information about school and school system achievement on the subject area goals and objectives specified in the *Standard Course of Study* and the *Teacher Handbook*.

The development of the end-of-course tests will require many years of effort. End-of-course tests are the final product of a process which includes: curriculum development and review; statewide curriculum surveys; test specification; the writing, review, and field-testing of a large pool of test items matched to objectives in the *Teacher Handbook*; test construction using selected items from the pool; and review, field-testing, and equating of different forms of each test. Several forms of each end-of-course test are developed so that the same tests are not administered in subsequent years.

Based on statewide enrollment patterns and recommendations made by two commissions on education, the end-of-course tests chosen for initial development were Biology and Algebra I. Item pools for these two courses were built in the spring of 1985. The results of the item development phase indicated that the Algebra I items were sufficient in quality and quantity to merit building end-of-course tests. Additional Biology items and an item bank for Algebra II were developed during the 1985-86 school year, including field-testing in selected sites in May of 1986. In addition to Algebra I, both Biology and Algebra II End-of-Course Tests were administered statewide at the end of the 1986-87 school year. U.S. History items were field tested in 1986-87 and the U.S. History End-of-Course Test was added in 1987-88. Geometry and Chemistry items, including proofs for Geometry, were developed and field tested during 1987-88. Current plans are to add the Chemistry and Geometry End-of-Course Tests to the administration of end-of-course tests at the end of the 1988-89 school year.

Although end-of-course tests for different subject areas will vary in length, 110 minutes will be sufficient for administration in all subjects. The State Board of Education requires that end-of-course tests be administered during 110-minute periods within the last 10 days of school, and recommends that they be administered during final exam periods.

The first North Carolina Algebra II End-of-Course Test was administered at the end of the 1986-87 school year. Unlike other end-of-course tests, one form of a 56-item test was administered in each classroom. In 1988, four Algebra II test forms were administered in each classroom in order to collect more information about performance in particular areas of the curriculum. Each form consisted of a 56-item statistically equivalent core and 10 variable items. Comparisons of performance on the core items are appropriately made across individual students. Due to the change in administrative procedure, performance on the 1988 core tests cannot be compared with 1987 performance. Therefore, average core scores at the 1988 administration will provide a baseline with which to compare future performance. Statewide performance on the entire set of 264 items provides a standard to which school and school system achievement of goals and objectives can be compared.

Characteristics of Algebra II Students

Other North Carolina testing programs assess achievement in basic subject areas of an entire cohort or class of students. End-of-course assessments are different in two ways. First, some of the courses are offered to students at different grade levels. Second, some courses are not required of all students; the students who do take the courses are a subgroup of the total student population.

Table 1 compares certain characteristics of both Algebra I and Algebra II students with the broader population of all enrolled students. The top portion of the table provides the distribution of Algebra II students at various grade levels compared with the average daily membership in those grades. While the largest percentage of Algebra II students (50.2) was in the eleventh grade, 26.6 percent were in the tenth grade and 21.9 percent were in the twelfth grade. Most students taking Algebra II in the tenth grade are on an accelerated course sequence which includes Algebra I in the eighth grade, Geometry in the ninth grade and Algebra II in the tenth grade.

A cross section of 36,414 students took Algebra II in different grade levels in 1987-88. An estimate of 40.4 percent of a cohort, or class, of students who will eventually take Algebra II in their school career was obtained by using enrollment in ninth grade as a cohort estimate. This estimate varies considerably among school systems, from a low of 15.3 percent to a high of 71.0 percent (see Table 11 in the Appendix). In an independent study using a random sample of eleventh-grade students, 49.4 percent of North Carolina's and 46.8 percent of the nation's students report having taken Algebra II.[1]

Students who take Algebra II must have successfully completed Algebra I.[2] Using the cross section of students taking Algebra II in 1987-88, it is estimated that approximately 60 percent of Algebra I students will eventually take Algebra II.

The second section of Table 1 compares the ethnic composition of Algebra II with the ethnic composition of K-12 pupil membership.[3] Compared with their distribution in the total school population, black students appear to be underrepresented and white students appear to be overrepresented in Algebra II classrooms across the state. Although there are fewer black students taking Algebra II than would be expected if the proportion of black students was the same in Algebra II as in the school population, slightly more of North Carolina's black eleventh-grade students (36.7 percent) report having taken Algebra II than the nation's black eleventh-grade students (34.0 percent).[1] In addition, the gap in participation by ethnic group has narrowed slightly since 1986-87.

The third section of Table 1 compares parental education levels of Algebra II students with parental education levels of students in the eighth grade statewide.[4] Students who have parents with an education beyond high school composed 73.3 percent of Algebra II students but only 41.6 percent of the eighth-grade class. On the other hand, students with less educated parents appear to be underrepresented in Algebra II classes across the state. Among eleventh graders, 20.9 percent of North Carolina students and 26.5 percent of the nation's students whose parents have less than a high school education report that they have taken Algebra II.[1]

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[1]Southern Regional Education Board (1987) and National Assessment of Educational Progress (1986) Assessment of Mathematics.

[2]In a 1987 random sample of North Carolina high schools, 76 percent report using grades in prerequisite courses as a criterion for enrollment in Algebra II. Approximately 64 percent of 1986-87 Algebra I students had an anticipated final grade of 'C' or better.

[3]Obtained from Table 11, North Carolina Public Schools, *Statistical Profile 1988*.

[4]Teachers recorded education level of the most educated parent of eighth-grade students taking the California Achievement Tests in 1987-88. Algebra II students recorded education level of their most educated parent.

Table 1

North Carolina Algebra II Students[1] Compared with 1987-88 First-Month Average Daily Membership in Tenth, Eleventh, and Twelfth Grades

Grade	ADM	Algebra II Students[1]	Percent of ADM	Percent of Algebra II Students
Tenth	85,783	9,702	11.3	26.6
Eleventh	80,154	18,276	22.8	50.2
Twelfth	71,308	7,976	11.2	21.9
Other		460		1.3
TOTAL	237,245	36,414	15.3	100.0

Percent of a class of students[2] taking Algebra II = 40.4
Percent of a class of students[2] taking Algebra I = 66.2

1987-1988 K-12 Pupil Membership[3], Algebra I, and Algebra II Students by Ethnic Group

Ethnic Group	Membership	Percent of Membership	Algebra I Students[1]	Percent of Algebra I	Algebra II Students[1]	Percent of Algebra II
American Indian	17,756	1.6	774	1.3	351	1.0
Black	328,670	30.3	15,540	26.2	6,905	19.0
White	726,181	66.9	42,177	71.0	28,330	78.1
Other	12,337	1.1	926	1.6	697	1.9
TOTAL	1,084,944	99.9	59,417	100.1	36,283	100.0

Parental Education of Eighth-Grade, Algebra I, and Algebra II Students

Parental Education	Eighth Grade Students[4]	Percent of Students[4]	Algebra I Students[1]	Percent of Algebra I	Algebra II Students[1]	Percent of Algebra II
Eighth Grade or Less	2,186	2.9	569	1.0	216	.6
8th to 12th	11,126	14.5	5,161	8.8	1,687	4.7
High School Graduate	31,474	41.0	16,471	28.1	7,752	21.5
More Than High School	31,893	41.6	36,516	62.2	26,476	73.3
TOTAL	76,679	100.0	58,717	100.1	36,131	100.1

[1]As identified in the 1987-1988 administration of the Algebra I or Algebra II End-of-Course Test.
[2]The 1987-88 ninth-grade class was used as a proxy for a class of students.
[3]Obtained from Table 11, North Carolina Public Schools, *Statistical Profile 1988*
[4]As identified in 1987-88 administration of the California Achievement Tests.

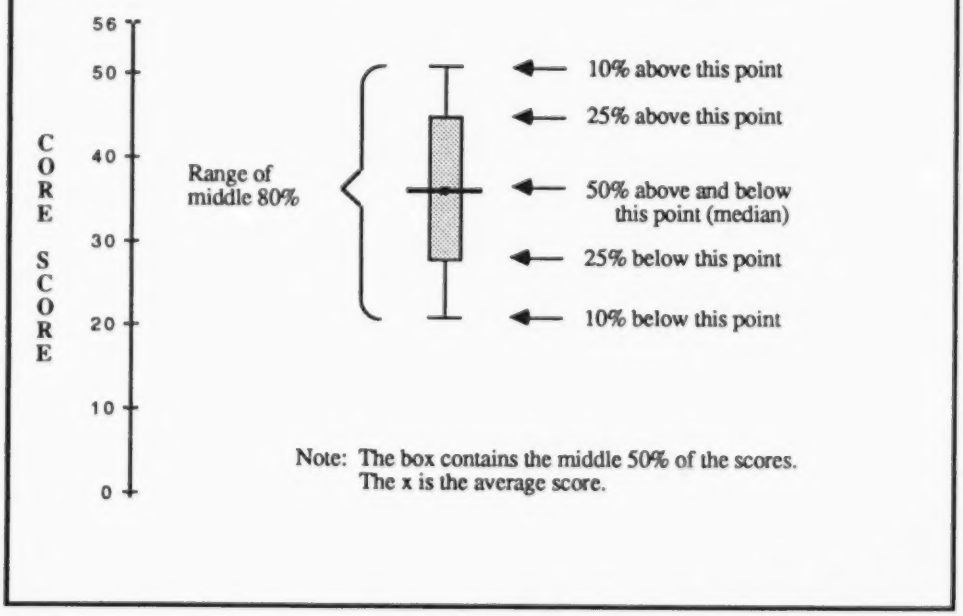
Student Performance on the Core Test

Summary scores for the 1987 and 1988 56-item core test are presented in Table 2 . In 1988, the average score for the 36,414 students taking the test was 36.2, or 64.6 percent correct. Due to administrative differences between the 1987 and 1988 testing, scores on the 1988 test cannot be directly compared with scores on the 1987 test. Performance on the 1988 Algebra II Test will provide a standard to which growth in Algebra II achievement can be compared in future years.

Group achievement on tests, whether for schools, school systems, or the state, is usually reported using summary numbers such as the average or median which indicate typical performance for the group. One number, whether it is the average or the median score, provides limited information about performance. *Box and whisker plots* are graphs which describe not only typical performance, but also the performance of most of the students by showing the spread of scores. Box and whisker plots allow the comparison of the high and low scores for different groups as well as the middle scores.

Figure 1 shows how to interpret the box and whisker plots using statewide Algebra II scores for 1987-88. The *box* represents the middle 50 percent of scores with the median represented by a horizontal line inside the box. An 'x' inside the box shows the location of the average (mean) score. The *whiskers* extend up to the 90th percentile and down to the 10th percentile. The entire figure shows the range of the middle 80 percent of scores. As can be seen in Figure 1, the middle 50 percent of Algebra II students answered between 28 and 45 items correctly. Ten percent of the Algebra II students scored above 51 and ten percent scored at or below 21.

Figure 1. Box and Whisker Plot of Distribution of 1988 Statewide Algebra II Core Scores with Interpretive Legend



Note: The box contains the middle 50% of the scores. The x is the average score.

Table 2

Average Performance on Algebra II Core Test: 1987--1988

	1987			1988		
	Number Tested	Average Score	Average Percent Correct	Number Tested	Average Score	Average Percent Correct
State	36,633	37.7	67.2	36,414	36.2	64.6
Sex						
Male	16,367	38.1	68.0	16,174	36.4	65.1
Female	20,070	37.3	66.7	20,154	36.0	64.2
Ethnic Group						
American Indian	382	33.6	59.9	351	32.1	57.3
Black	6,432	33.2	59.4	6,905	31.7	56.5
White	28,979	38.6	68.9	28,330	37.2	66.4
Other	637	42.8	76.5	697	41.8	74.6
Parental Education						
Less than Eighth Grade	220	33.6	60.0	216	34.8	62.1
Eighth to Twelfth	1,749	34.3	61.2	1,687	32.2	57.5
High School Graduate	8,023	35.6	63.5	7,752	34.0	60.7
More than Twelfth	25,617	38.7	69.1	26,476	37.1	66.3
Grade in School						
Ten	10,619	43.0	76.7	9,702	42.8	76.3
Eleven	18,614	36.7	65.6	18,276	35.1	62.7
Twelve	6,823	31.5	56.2	7,976	30.2	53.9
Other	577	42.8	76.5	460	44.0	78.6
Type of Class						
Regular Algebra II	28,080	36.1	64.5	29,216	34.6	61.8
Honors Algebra II	6,311	44.3	79.1	5,918	44.3	79.1

Table 2 also shows average performance on the 56-item core test by sex, parental education, ethnic group, grade in school, and type of class. Figures 2 through 5 show the distributions of Algebra II scores by various groups using box and whisker plots.

Average performance for males was similar to average performance for females. The distributions of scores are also similar for males and females. On average, white students and 'other' students scored higher than American Indian students and black students. Although students who have parents educated beyond high school had higher average scores than students who have less educated parents, the distributions of scores are similar for all education groups.

The largest difference in average scores appeared among students taking Algebra II in different grade levels. Only 11.3 percent of the tenth-grade class took Algebra II; this select group of high achieving students scored higher than any other group. The average score for tenth-grade students was 42.8, more than 7 points higher than the average score for eleventh-grade students, and more than 12 points higher than the average score for twelfth-grade students. In addition, students in honors Algebra II classes scored significantly higher than students in regular Algebra II classes. In Figure 5 it can be seen that 90 percent of tenth grade students scored above 29 while less than 75 percent of eleventh grade students scored above this point.

The 16.8 percent of Algebra II students who are in honors Algebra II classes achieved an average score of 44.3 while students in regular Algebra II classes achieved an average score of 34.6.

Combining Performance and Participation: Yield and Effective Yield

Since Algebra II is a selective course not taken by all students, performance may be related to participation within school systems or throughout the state. For example, if only the top 20 percent of students take Algebra II, scores will necessarily be higher than if the top 50 percent take Algebra II. *Yield* is an index of the effectiveness of an Algebra II program which takes into account both participation and performance. It is calculated by multiplying the percent of a class taking Algebra II by the percent of core items answered correctly and then multiplying by 100. Yield would be 100 if all students took Algebra II and all students achieved a perfect score. For the state, approximately 40.4 percent of a class of students took Algebra II in 1987-88 and these students achieved an average of 64.6 percent of core items correct, producing a yield of 26.1. If average achievement does not change, yield will increase whenever participation increases.

Effective Yield is a similar index but it counts as 'participating' in Algebra II only those students whose achievement is above a certain cutoff point. This cutoff point is an estimation of whether or not they will pass the course. The estimate for the cutoff point is 24. In 1986-87 Algebra II teachers indicated that approximately 11.1 percent of their students would receive a final grade of 'F'; the same year about 10.4 percent of students received a score below 24. For the state, the 'effective' percent of a class, i.e. students scoring at or above 24 in 1987-88, was 31,437 of the 90,202 students estimated to be in the cohort, or 34.9 percent, producing an effective yield of 22.5. Effective yield will be the same as yield only when all students taking Algebra II achieve at or above the estimated passing score of 24. Therefore, the effective yield index will normally be lower than the yield index.

Table 3 shows the yield and effective yield indices for 1987 and 1988. Although the rate of participation in Algebra II increased slightly between 1987 and 1988, the lower 1988 scores (due to the differences between the 1987 and 1988 test administrations) resulted in slightly lower yield indices.

Figure 2. Distributions of Algebra II Core Scores by Sex -- 1988

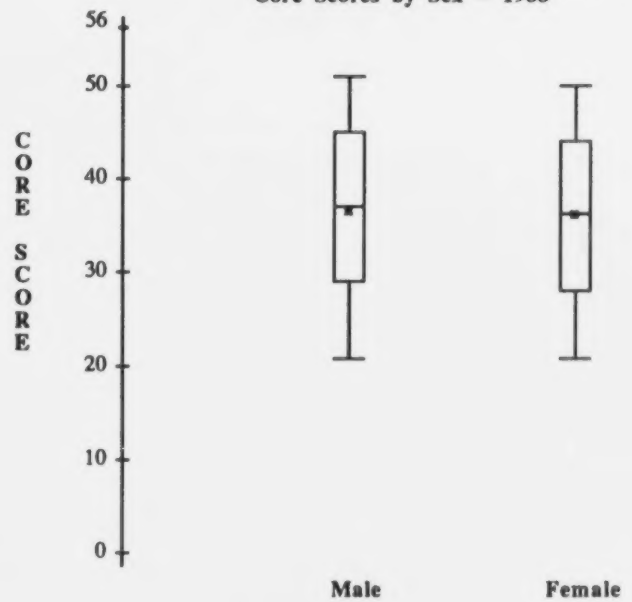


Figure 3. Distributions of Algebra II Core Scores by Ethnic Group -- 1988

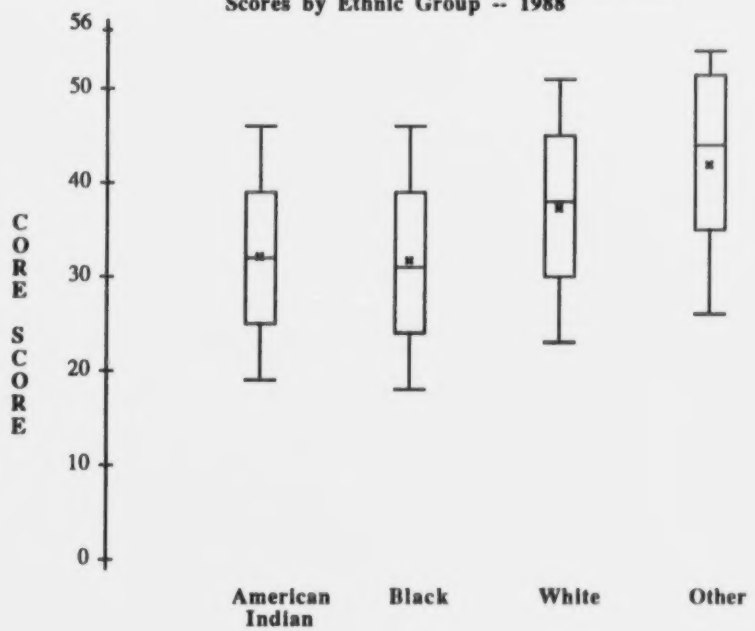


Figure 4. Distributions of Algebra II Core Scores by Parental Education -- 1988

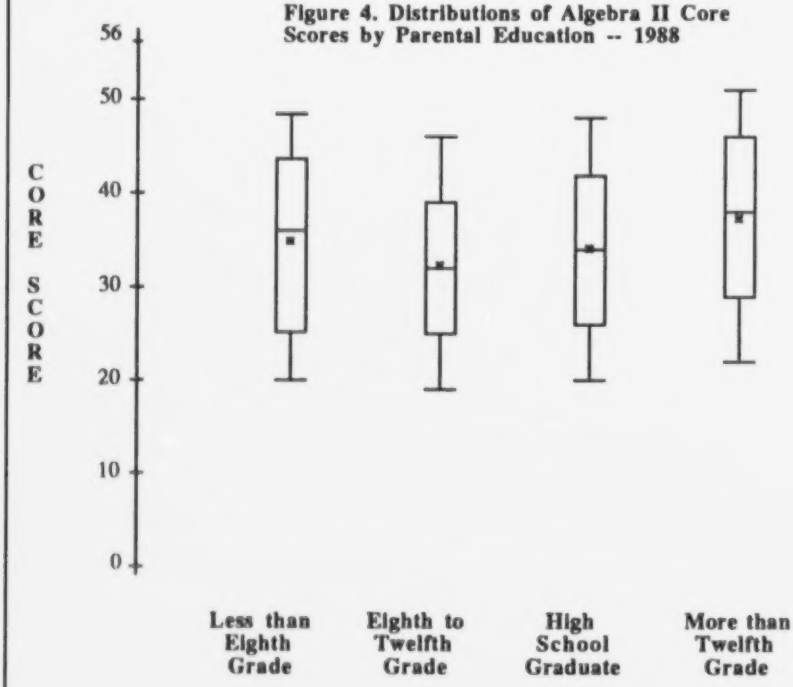


Figure 5. Distributions of Algebra II Core Scores by Grade Level -- 1988

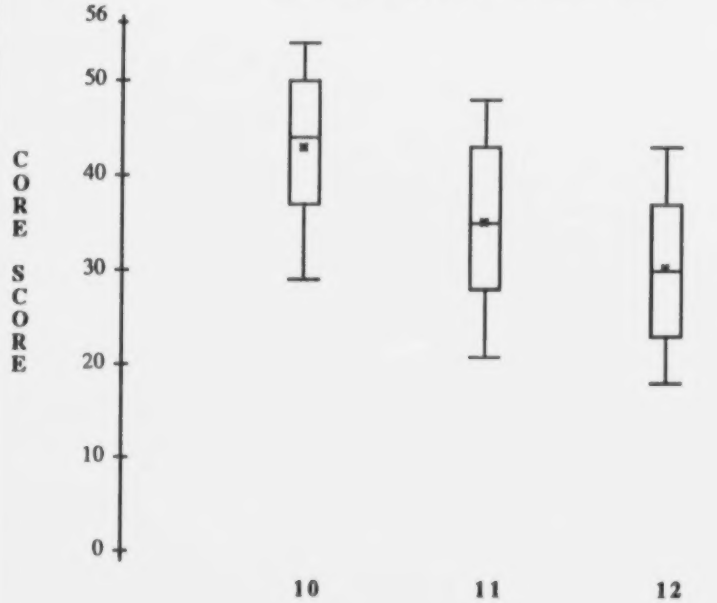


Table 3

Algebra II Yield and Effective Yield Indices for 1987--1988

	1987	1988
Yield	26.3	26.1
Effective Yield	23.6	22.5

The 1987 and 1988 core performance, participation (percent of class), yield, and effective yield for all 140 school systems in the state are presented by region in Table 10 in the Appendix. Comparisons among school systems should always be sensitive to the fact that the social and demographic factors which are strongly related to differences in achievement are not distributed evenly across the state. These factors influence the yield indices as well as performance. For example, school systems in high socio-economic areas should have both high participation and performance, resulting in high yield and effective yield indices. One appropriate comparison might be among school systems with similar socio-economic characteristics. Another would involve comparing yield and effective yield indices for a school system across time to look for changes in participation and performance.

Anticipated Final Grades and Scores on the Core Test

Algebra II teachers were asked to record each student's anticipated final grade on each answer sheet after the test was administered. Final grades were recorded for 35,738 of 36,414 Algebra II students. Table 4 gives the average score for various grade groups on the test and the percentages of students who were to receive the various grades for 1987 and 1988. A consistent difference of about 5 raw score points was observed between score averages for different anticipated final grades. This pattern is an indication of test validity in that the results parallel the grading practices of teachers. The average for 'C' students was similar to the statewide average in both years, placing these students in the middle of the score distribution.

Table 5 compares the average scores by anticipated grades between tenth and eleventh-grade students for 1987 and 1988. Average scores for the select group of tenth-grade students have been consistently higher than those for eleventh-grade students at each anticipated final grade. Greater proportions of students receive 'A's or 'B's in the tenth grade than in the eleventh grade and greater proportions of eleventh-grade students receive 'C's, 'D's or 'F's than tenth-grade students.

Box and whisker plots for the score distributions for each letter grade are displayed in Figure 6. The plot illustrates the spread of score points within letter grades and overlap in distributions across letter grades. For example, while the the typical 'F' student scored well below the typical 'D' student, approximately 10 percent of 'F' students received an above average core score.

Table 4

Average 56-Item Core Scores by Anticipated Final Grade and Percentage of Students Receiving Each Grade*: Algebra II End-of-Course Test: 1987-88

Grades	1987		1988	
	Average Scores	Percentages	Average Scores	Percentages
A	47.5	14.9	47.1	14.2
B	42.1	25.8	41.2	25.0
C	36.9	27.8	35.6	27.6
D	32.1	20.4	30.3	21.4
F	26.5	11.1	24.8	11.8

Table 5

Average 56-Item Core Scores by Anticipated Final Grade and Percentage of Students Receiving Each Grade within Tenth and Eleventh Grades: Algebra II End-of-Course Test: 1987-1988

Grades	1987				1988			
	Average Scores		Percentages		Average Scores		Percentages	
	Grade 10	Grade 11	Grade 10	Grade 11	Grade 10	Grade 11	Grade 10	Grade 11
A	49.1	45.9	25.8	12.3	49.2	45.1	27.4	11.5
B	44.8	40.9	34.4	24.8	44.4	39.8	33.7	24.9
C	40.5	36.4	24.8	29.4	39.9	34.8	24.4	29.8
D	34.8	32.5	10.5	21.8	33.8	30.4	10.6	21.7
F	28.8	27.0	4.5	11.7	27.2	25.2	4.0	12.1

*1987: N=33,519 1988: N=35,738

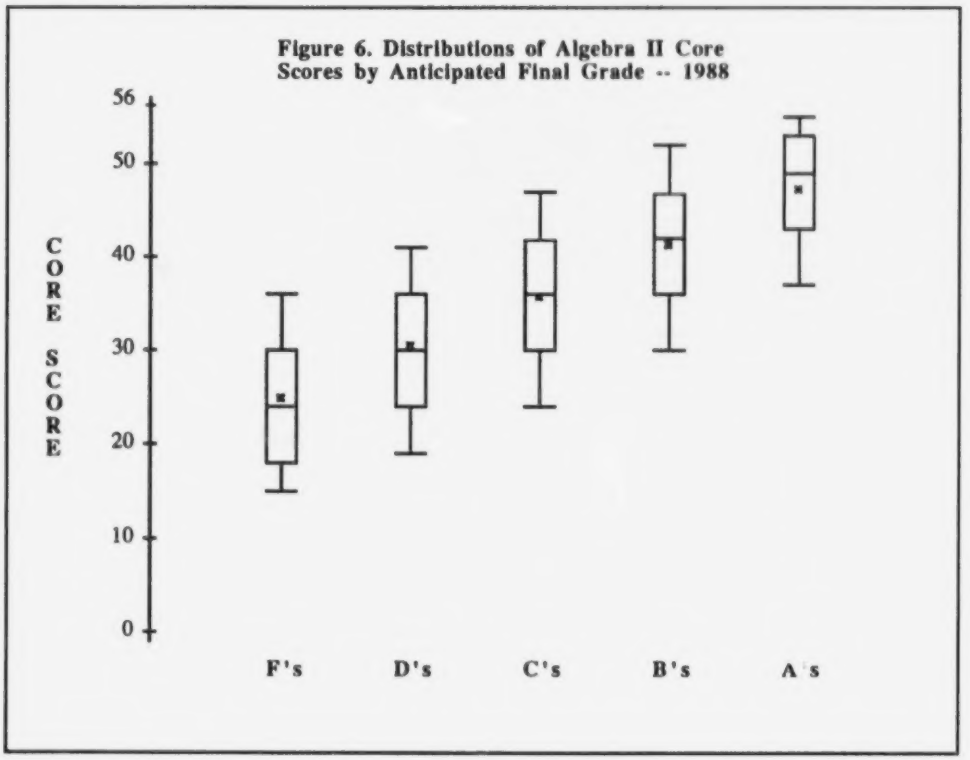


Figure 6. Distributions of Algebra II Core Scores by Anticipated Final Grade -- 1988
CORE SCORE
56
50
40
30
20
10
0
F's
D's
C's
B's
A's

Average Performance on the Curriculum Test

Table 6 shows average performance on the goals as measured by the 264 items assessed in 1988, for all Algebra II students in the state, and by sex, ethnic group, parental education level, and grade in school. Performance on objectives measured by 4 or more items in 1988 is presented in Table 7. Goal and objective scores yield important information about performance within specific areas in the curriculum. The average percentage correct of all items measured in 1988 is 64.6.

In general, Algebra II goals and objectives are cumulative and sequential and therefore usually increase in difficulty and complexity from Goal 1 through Goal 15.[1] Average performance on the goals reflects this pattern with higher average scores occurring on the early goals and lower average scores occurring on the later goals.

Performance on Goal 1, in which students review the language of Algebra, was higher than that on any other goal. The two goals in which students perform operations with real numbers (Goal 3) or polynomials (Goal 6) also had average percentage correct scores above 70 percent. On the other hand, when students had to perform operations with algebraic fractions (Goal 7), average performance was 57.5 percent correct. Of the objectives reported in Goals 3 and 6, performance was above 80 percent correct on objectives in which students add real numbers, add polynomials, multiply a polynomial by a monomial, multiply two binomials, and factor quadratic polynomials. When the student had to factor polynomials completely in problems involving multiple steps (Objective 6.15), average performance dropped to just over 50 percent correct.

Three goals focus on solutions to equations. Among these goals, average performance was highest (67.2 percent) on Goal 5, "solve systems of linear equations" and lowest on Goal 9, "solve quadratic equations". When the problems involve linear equations and inequalities (Goal 4), average performance was 57.2 percent. Three of the objectives reported this year for these goals had average percentage correct scores above 70 percent: Objective 4.3: "solve equations with rational coefficients", Objective 5.2: "find the solution sets of systems of two linear equations in two variables (5), and Objective 5.6: "solve systems of linear equations by using Cramer's Rule."

In Goals 8, 10, 12, and 14, students solve various types of special problems. When the problems involve radical expressions or complex numbers (Goals 8 and 10), the average performance was close to that of average performance overall. The lowest performance for any goal occurred on those with the few problems involving variation, logarithmic functions, or exponential functions (Goals 12 and 14).

Using analytic geometry to solve problems is the subject of Goal 11. The important concepts covered in this goal lay part of the foundation for understanding advanced mathematics such as calculus. Average performance on the 20 items measuring this goal was 51.9 percent correct.

Statewide performance across all Algebra II goals and objectives shows areas of strength and areas in which improvement is needed. As schools and school systems examine their own performance on these goals and objectives, they can identify patterns of strengths and weaknesses relative to statewide performance.

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[1]A curriculum survey of all North Carolina Algebra II teachers determined that several Algebra II objectives, including all of the objectives for Goal 13, are not basic to all Algebra II classes. They are included in the *Teacher Handbook* as enrichment objectives and are not tested on the End-of-Course Tests.

Table 6

1988 Summary Results for Algebra II: 56-Item Core Test and 264-Item Curriculum Test

STATE REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSIONS
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
ALL STUDENTS TESTED																			
	36414	78.5	65.2	70.7	57.2	67.2	71.9	57.5	61.9	50.1	63.4	51.9	45.2	47.8	53.8	36.2	64.6	170.5	64.6
SEX																			
MALE	16174	79.0	67.2	72.2	57.2	67.8	71.3	56.3	62.0	50.3	64.0	53.6	48.5	48.0	58.5	36.4	65.1	171.8	65.1
FEMALE	20154	78.2	63.5	69.5	57.1	66.8	72.4	58.6	61.9	50.0	62.8	50.5	42.6	47.7	50.0	36.0	64.2	169.5	64.2
PARENTAL EDUCATION																			
LESS THAN 8TH	216	74.8	63.6	66.6	53.6	64.1	70.5	56.9	60.9	50.8	59.6	50.0	37.2	42.8	46.9	34.8	62.1	164.0	62.1
8TH TO 12TH	1687	72.9	58.6	64.1	48.9	60.1	66.5	50.6	53.7	42.6	54.6	42.4	35.5	41.0	42.9	32.2	57.5	151.9	57.5
HIGH SCHOOL	7752	75.9	61.1	67.5	52.6	63.1	68.8	53.2	57.6	46.5	59.6	47.1	39.6	43.3	48.5	34.0	60.7	160.4	60.7
MORE THAN 12TH	26476	79.8	66.8	72.2	59.1	69.0	73.2	59.3	63.8	51.7	65.2	54.0	47.7	49.7	56.2	37.1	66.3	174.9	66.2

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 6, cont'd.

STATE REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSIONS
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
GRADE IN SCHOOL																			
TEN	9702	86.2	76.0	80.7	71.7	79.7	81.9	71.3	75.8	64.0	76.7	66.3	58.4	59.9	67.4	42.8	76.3	201.5	76.3
ELEVEN	18276	77.5	63.3	69.2	54.5	65.4	70.6	55.1	59.7	47.5	61.2	49.0	43.0	45.4	51.6	35.1	62.7	165.4	62.7
TWELVE	7976	71.0	55.6	61.3	44.5	55.4	62.2	45.4	49.3	38.2	51.0	40.2	33.9	37.5	41.4	30.2	53.9	142.1	53.8
OTHER	460	87.1	78.5	82.0	74.9	82.3	83.3	74.1	78.8	69.0	80.5	69.6	55.3	64.9	65.6	44.0	78.6	207.3	78.5
ETHNIC GROUP																			
AMER.INDIAN	351	72.0	55.7	64.7	48.8	58.3	67.3	49.1	52.7	43.8	53.7	43.9	42.8	35.3	47.3	32.1	57.3	151.3	57.3
BLACK	6905	71.8	56.4	62.6	47.3	57.4	65.5	50.5	52.9	41.8	53.6	42.9	35.7	40.9	40.6	31.7	56.5	148.9	56.4
WHITE	28330	80.1	67.2	72.6	59.4	69.5	73.3	59.1	63.9	51.9	65.6	53.9	47.3	49.4	56.9	37.2	66.4	175.4	66.4
OTHER	697	84.5	75.0	78.4	69.8	76.0	79.8	70.8	74.3	64.3	72.6	66.2	55.8	62.2	61.9	41.8	74.6	196.9	74.6

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 7

1988 Summary Results for Algebra II Goals and Objectives

GOAL 1:	USE THE LANGUAGE OF ALGEBRA (23)	78.5
1.1:	USE THE ORDER OF OPERATIONS & EVALUATE ALGEBRAIC EXPRESSIONS (4)	80.6
1.2:	TRANSLATE ENGLISH WORDS & PHRASES INTO MATHEMATICAL LANGUAGE (5)	75.8
1.3:	USE THE PROPERTIES OF ADDITION TO SIMPLIFY ARITHMETIC & ALGEBRAIC EXPRESSIONS (5)	75.6
1.4:	USE THE PROPERTIES OF MULTIPLICATION TO SIMPLIFY ARITHMETIC & ALGEBRAIC EXPRESSIONS (4)	71.6
1.5:	USE THE DISTRIBUTIVE PROPERTY OF MULTIPLICATION OVER ADDITION TO SIMPLIFY ARITHMETIC & ALGEBRAIC EXPRESSIONS (5)	88.2
GOAL 2:	LOCATE NUMBERS ON THE NUMBER LINE & ON THE COORDINATE PLANE (18)	65.2
2.1:	GRAPH SETS OF REAL NUMBERS ON THE NUMBER LINE (4)	78.6
2.2:	GRAPH ORDERED PAIRS OF NUMBERS ON THE COORDINATE PLANE & FIND THE COORDINATES OF POINTS ON THE PLANE (5)	72.9
2.3:	GRAPH LINEAR EQUATIONS IN TWO VARIABLES (5)	54.8
2.4:	GRAPH A RELATION ON THE COORDINATE PLANE (1)	***
2.5:	GRAPH THE SOLUTION SETS OF SYSTEMS OF LINEAR INEQUALITIES IN TWO VARIABLES (1)	***
2.6:	GRAPH A FUNCTION ON THE COORDINATE PLANE (1)	***
2.7:	GRAPH THE EQUATIONS OF A PARABOLA, CIRCLE, ELLIPSE, & HYPERBOLA (1)	***
GOAL 3:	PERFORM OPERATIONS WITH REAL NUMBERS (30)	70.7
3.1:	ADD REAL NUMBERS (5)	83.2
3.2:	SUBTRACT REAL NUMBERS (5)	74.3
3.3:	MULTIPLY REAL NUMBERS (5)	75.3
3.4:	DIVIDE REAL NUMBERS (4)	64.5
3.5:	USE < OR > TO COMPARE TWO NUMBERS (5)	62.7
3.6:	SIMPLIFY EXPRESSIONS INVOLVING POSITIVE, NEGATIVE, & ZERO EXPONENTS (4)	64.5
3.7:	MULTIPLY AND DIVIDE NUMBERS WRITTEN IN SCIENTIFIC NOTATION (1)	***
3.8:	WRITE A RATIONAL NUMBER AS A TERMINATING OR REPEATING DECIMAL (1)	***
GOAL 4:	SOLVE LINEAR EQUATIONS & INEQUALITIES (20)	57.2
4.1:	SOLVE EQUATIONS IN ONE VARIABLE (1)	***
4.2:	SOLVE EQUATIONS INVOLVING ABSOLUTE VALUE (5)	52.3

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 7, cont'd

4.3: SOLVE EQUATIONS WITH RATIONAL COEFFICIENTS (4)	71.2
4.4: SOLVE LITERAL EQUATIONS & FORMULAS (5)	53.2
4.5: SOLVE INEQUALITIES IN ONE VARIABLE (4)	53.2
4.6: SOLVE INEQUALITIES INVOLVING ABSOLUTE VALUE (1)	***
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS (24)	67.2
5.1: FIND SOLUTION SETS OF OPEN SENTENCES IN TWO VARIABLES WITH GIVEN REPLACEMENTS FOR THE VARIABLES (5)	63.5
5.2: FIND THE SOLUTION SETS OF SYSTEMS OF TWO LINEAR EQUATIONS IN TWO VARIABLES (5)	75.8
5.3: USE SYSTEMS OF TWO LINEAR EQUATIONS IN TWO VARIABLES TO SOLVE PROBLEMS (4)	53.7
5.4: FIND THE SOLUTION SETS OF SYSTEMS OF THREE LINEAR EQUATIONS IN THREE VARIABLES (5)	66.9
5.6: SOLVE SYSTEMS OF LINEAR EQUATIONS BY USING CRAMER'S RULE (5)	73.7
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS (55)	71.9
6.1: ADD POLYNOMIALS (5)	80.8
6.2: SUBTRACT POLYNOMIALS (4)	64.3
6.3: MULTIPLY A POLYNOMIAL BY A MONOMIAL (5)	87.5
6.4: MULTIPLY TWO BINOMIALS BY USING SPECIAL PRODUCT FORMULAS (4)	81.4
6.5: MULTIPLY A BINOMIAL & A POLYNOMIAL (5)	78.1
6.6: FIND THE QUOTIENT OF TWO MONOMIALS (5)	78.1
6.7: DIVIDE ONE POLYNOMIAL BY ANOTHER ONE OF LOWER DEGREE (4)	63.3
6.8: USE SYNTHETIC DIVISION TO DIVIDE A POLYNOMIAL BY A LINEAR BINOMIAL (0)	***
6.9: FACTOR MONOMIALS & FIND THE GCF AND LCM OF TWO OR MORE MONOMIALS (1)	***
6.10: FACTOR SPECIAL POLYNOMIALS (5)	65.9
6.11: FACTOR QUADRATIC POLYNOMIALS (5)	80.4
6.12: USE FACTORING TO SOLVE AN EQUATION (5)	67.3
6.13: USE POLYNOMIAL EQUATIONS TO SOLVE PROBLEMS (1)	***
6.14: USE FACTORING TO SOLVE INEQUALITIES (1)	***
6.15: FACTOR POLYNOMIALS COMPLETELY (5)	50.1

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 7, cont'd.

GOAL 7:	PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS (23)	57.5
7.1:	WRITE ALGEBRAIC FRACTIONS IN LOWEST TERMS (4)	54.3
7.2:	SIMPLIFY PRODUCTS & QUOTIENTS OF RATIONAL ALGEBRAIC EXPRESSIONS (5)	70.0
7.3:	SIMPLIFY SUMS & DIFFERENCES OF RATIONAL ALGEBRAIC EXPRESSIONS (4)	51.3
7.4:	SIMPLIFY COMPLEX FRACTIONS (5)	46.2
7.5:	SOLVE FRACTIONAL EQUATIONS (5)	53.0
GOAL 8:	SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION (23)	61.9
8.1:	SIMPLIFY ROOTS OF REAL NUMBERS (4)	71.8
8.2:	SIMPLIFY EXPRESSIONS INVOLVING FRACTIONAL EXPONENTS (4)	55.8
8.4:	SIMPLIFY EXPRESSIONS INVOLVING SUMS & DIFFERENCES OF RADICALS (5)	66.1
8.5:	SIMPLIFY EXPRESSIONS INVOLVING PRODUCTS & QUOTIENTS OF RADICALS (4)	47.3
8.6:	INDICATE THE SQUARE ROOT OF A NEGATIVE NUMBER AS A COMPLEX NUMBER (5)	72.2
8.7:	SOLVE EQUATIONS WHICH CONTAIN RADICAL EXPRESSIONS (1)	***
GOAL 9:	SOLVE QUADRATIC EQUATIONS (9)	50.1
9.1:	COMPLETE THE SQUARE TO SOLVE QUADRATIC EQUATIONS (1)	***
9.2:	USE THE QUADRATIC FORMULA TO SOLVE QUADRATIC EQUATIONS (5)	52.1
9.3:	USE THE DISCRIMINANT OF A QUADRATIC EQUATION TO DETERMINE THE NATURE OF THE ROOTS (1)	***
9.4:	WRITE A QUADRATIC EQUATION GIVEN ITS SOLUTION SET (1)	***
9.6:	SOLVE A SYSTEM OF TWO EQUATIONS IN WHICH ONE OR BOTH ARE QUADRATIC (1)	***
GOAL 10:	SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS (3)	63.4
10.1:	ADD & SUBTRACT COMPLEX NUMBERS (1)	***
10.2:	SIMPLIFY EXPRESSIONS INVOLVING PRODUCTS & QUOTIENTS OF COMPLEX NUMBERS (1)	***
10.3:	SOLVE QUADRATIC EQUATIONS INVOLVING COMPLEX ROOTS (1)	***
GOAL 11:	USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS (20)	51.9
11.1:	USE THE DISTANCE FORMULA (1)	***
11.2:	DETERMINE THE COORDINATES OF THE MIDPOINT OF A SEGMENT (1)	***

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 7, cont'd.

11.3:	FIND THE SLOPE OF A LINE GIVEN TWO POINTS, AN EQUATION OF THE LINE, OR THE GRAPH OF A LINE (5)	55.6
11.4:	FIND AN EQUATION OF A LINE GIVEN ITS SLOPE & THE COORDINATES OF A POINT, OR THE COORDINATES OF TWO POINTS, OR ITS SLOPE & Y-INTERCEPT (5)	57.6
11.5:	DETERMINE IF TWO LINES ARE PARALLEL OR PERPENDICULAR BY EXAMINING THEIR SLOPES (5)	47.5
11.6:	USE THE PYTHAGOREAN THEOREM & ITS CONVERSE TO SOLVE PROBLEMS (1)	***
11.7:	WRITE THE EQUATION OF A CIRCLE FROM ITS GEOMETRIC PROPERTIES (1)	***
11.8:	IDENTIFY PARABOLAS, CIRCLES, ELLIPSES, & HYPERBOLAS FROM THEIR EQUATIONS (1)	***
GOAL 12:	SOLVE PROBLEMS INVOLVING VARIATION (2)	45.2
12.1:	USE DIRECT VARIATION TO SOLVE PROBLEMS (1)	***
12.2:	USE INVERSE VARIATION TO SOLVE PROBLEMS (1)	***
12.3:	USE JOINT VARIATION TO SOLVE PROBLEMS (0)	***
GOAL 14:	SOLVE PROBLEMS INVOLVING LOGARITHMIC & EXPONENTIAL FUNCTIONS (6)	47.8
14.1:	WRITE AN EXPONENTIAL FUNCTION AS A LOGARITHMIC FUNCTION & VICE VERSA (1)	***
14.5:	SOLVE PROBLEMS USING LAWS OF LOGARITHMS (5)	47.6
GOAL 15:	INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING (8)	53.8
15.1:	SOLVE "WORD PROBLEMS" (5)	54.5
15.2:	USE INEQUALITIES AS WELL AS EQUATIONS TO SOLVE "WORD PROBLEMS" (1)	***
15.3:	SOLVE "WORD PROBLEMS" INVOLVING FRACTIONAL EQUATIONS (1)	***
15.4:	USE QUADRATIC EQUATIONS TO SOLVE VERBAL PROBLEMS (1)	***
	PERCENT CORRECT ALL ITEMS (264)	64.6
	AVERAGE SCORE ALL ITEMS (264)	170.5
	NUMBER OF STUDENTS TESTED	36414

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

APPENDIX

Algebra II Core and Goal Performance in Educational Regions and Public School Systems

Table 8 presents average performance on the 56-item core test, the 264-item curriculum test, and the goals of Algebra II for the eight educational regions.

Public school system average core and goal performance are given in Table 9. School systems are arranged by educational region.

Algebra II Box and Whisker Plots of Core Scores for Educational Regions and Public School Systems

Figure 7 displays the distributions of core scores for the eight educational regions using box and whisker plots. Public school system box and whisker plots are presented in Figures 8 through 15. See the interpretive legend in Figure 1 on page 4.

Algebra II Core Performance, Participation Rates, Yield, and Effective Yield for Public School Systems: 1987-1988

Table 10 presents participation rates, yield, effective yield, and performance on the equivalent 56-item core tests administered in both years for the public school systems. School systems are arranged by educational region. Comparisons among school systems should always be sensitive to the fact that the social and demographic factors which are strongly related to differences in achievement are not distributed evenly across the state. These factors influence the yield indices as well as performance. For example, school systems in high socio-economic areas should have both high participation and performance, resulting in high yield and effective yield indices. One appropriate comparison might be among school systems with similar socio-economic characteristics. Another would involve comparing yield and effective yield indices for a school system across time to look for changes in participation and performance.

Characteristics of the Algebra II Students in Public School Systems

Select characteristics of all students in public school systems and all students taking Algebra II are listed in Table 11. The percent of a class is an estimate of the percent of an entire cohort or class of students who will eventually take Algebra II in their public school career. As shown in Table I, in North Carolina it is estimated that 40.4 percent of a class of students will take Algebra II before they graduate from high school.

The ethnic distribution and parental education distribution within school systems and Algebra II classes also varied by school system. Statewide, black students and students with less educated parents appear to be underrepresented in Algebra II classes.

State Percentile Tables for 1987-1988

Tables 12-13 give summary statistics, the score distributions, and state percentiles for the 1987 and 1988 administrations of the Algebra II End-of-Course Tests. The 1988 percentiles provide a baseline to which subsequent performance on the equivalent core tests can be compared.

Table 8

1988 Regional Summary Results for Algebra II: 56-Item Core Test and 264-Item Curriculum Test

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
NORTHEAST	1997	76.6	63.9	67.9	54.9	66.3	70.0	55.4	59.7	49.1	59.7	50.2	41.4	45.1	51.8	35.1	62.6	165.3	62.6
SOUTHEAST	3752	77.3	64.6	69.1	55.1	66.2	70.8	55.0	59.5	47.5	59.6	49.4	43.5	49.8	51.4	35.2	62.9	166.2	63.0
CENTRAL	6322	81.3	68.9	73.2	61.6	71.1	74.6	61.2	65.6	53.1	67.1	56.6	49.4	50.0	57.7	38.1	68.0	179.4	67.9
SOUTH CENTRAL	3880	76.8	61.3	68.7	53.4	63.0	70.3	55.4	59.2	49.6	63.3	48.5	40.6	43.9	49.0	34.7	62.0	163.6	62.0
NORTH CENTRAL	7183	79.6	66.3	72.4	59.6	68.7	73.3	59.6	64.9	51.5	65.7	54.4	47.6	52.6	55.4	37.2	66.4	175.4	66.4
SOUTHWEST	6578	77.3	62.7	69.3	54.1	64.9	69.9	55.0	58.9	47.0	60.6	48.1	44.1	44.0	52.3	34.9	62.3	164.3	62.2
NORTHWEST	3538	78.4	66.0	70.5	57.2	67.8	72.0	56.9	61.7	51.7	63.1	53.1	42.5	43.5	55.3	36.1	64.5	170.7	64.7
WESTERN	3164	78.2	65.5	71.2	57.6	67.7	71.7	58.4	61.8	49.8	63.5	51.9	47.2	49.8	54.1	36.3	64.8	171.0	64.8

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 9

1988 School System Summary Results for Algebra II: 56-Item Core Test and 264-Item Curriculum Test

REGION NORTHEAST

REGION REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
BEAUFORT COUNTY	145	73.4	61.8	62.6	46.2	64.5	61.1	47.2	50.9	43.1	58.5	50.3	44.5	35.7	47.4	31.9	56.9	150.2	56.9
WASHINGTON CITY	145	68.3	62.3	64.5	46.0	56.2	65.9	44.7	48.8	42.7	53.8	41.4	32.8	45.4	48.6	31.5	56.2	147.7	56.0
BERTIE COUNTY	127	70.8	55.5	60.4	46.8	61.3	62.5	41.8	42.4	34.3	45.3	43.4	20.6	22.9	34.0	29.8	53.2	139.9	53.0
CAMDEN COUNTY	44	79.9	65.7	72.0	60.0	66.5	79.1	63.8	62.6	43.8	56.0	59.2	37.5	53.0	57.5	37.2	66.4	178.3	67.5
CHOWAN COUNTY	80	82.8	68.6	76.5	64.2	71.9	74.6	55.0	66.7	51.7	63.3	55.0	55.0	37.5	64.4	38.1	68.1	179.5	68.0
CURRITUCK COUNTY	53	91.4	73.3	81.4	75.5	78.6	85.4	74.3	78.5	68.0	84.7	59.4	50.0	75.9	68.0	43.8	78.2	206.2	78.1
DARE COUNTY	88	86.5	77.8	80.9	74.0	81.7	81.0	69.9	72.8	63.6	76.3	73.9	59.0	64.5	75.0	43.2	77.2	204.0	77.3
GATES COUNTY	66	77.3	68.8	75.3	67.2	69.1	79.0	72.2	66.6	55.4	60.3	58.6	39.7	61.8	48.4	39.1	69.8	185.0	70.1
HERTFORD COUNTY	91	63.2	47.1	55.1	40.2	49.9	55.9	41.2	43.7	30.9	30.4	31.0	23.9	26.8	32.4	26.4	47.2	124.4	47.1
HYDE COUNTY	24	82.0	63.8	74.5	53.9	71.0	73.2	59.0	72.5	56.2	79.0	52.3	50.0	32.4	56.4	37.7	67.3	176.4	66.8
MARTIN COUNTY	210	70.1	56.6	62.3	46.5	57.5	64.7	47.6	56.6	46.7	61.9	48.6	34.7	42.6	37.2	31.5	56.3	148.0	56.1
PASQUOTANK COUNTY	203	77.9	65.6	68.0	58.6	69.4	69.3	60.2	64.4	44.6	57.4	52.6	42.7	59.2	55.5	36.3	64.8	170.4	64.5
PERQUIMANS COUNTY	53	80.1	82.2	70.8	65.2	74.5	81.1	64.3	68.3	59.7	58.8	59.5	62.4	65.6	67.9	40.4	72.1	190.1	72.0
PITT COUNTY	559	81.4	67.4	70.5	58.3	71.4	74.1	61.5	64.9	57.9	64.9	54.6	47.7	41.8	58.0	37.5	66.9	176.8	67.0
TYRRELL COUNTY	18	81.3	60.3	73.2	61.2	59.0	75.8	56.1	69.3	53.9	55.0	45.5	10.0	53.3	46.2	36.8	65.7	171.1	64.8
WASHINGTON COUNTY	91	68.8	53.4	61.9	40.9	56.0	61.7	42.0	49.4	31.2	52.1	35.5	32.5	45.4	41.4	29.3	52.3	138.8	52.6

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 9, cont'd.

REGION SOUTHEAST

REGION REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
BRUNSWICK COUNTY	224	71.3	58.6	62.3	48.6	58.3	60.4	43.9	51.7	38.7	41.6	41.1	34.7	46.0	41.1	30.5	54.5	144.2	54.6
CARTERET COUNTY	183	86.5	79.2	81.8	78.9	83.1	88.7	79.7	86.0	67.4	81.2	75.8	69.8	76.0	62.2	45.8	81.8	215.9	81.8
NEW BERN-CRAVEN	397	80.1	66.0	69.7	56.5	68.1	72.8	53.3	63.6	50.7	61.1	55.3	55.3	63.7	58.9	36.5	65.2	172.9	65.5
DUPLIN COUNTY	229	76.2	67.0	66.7	55.3	64.3	70.1	57.7	59.5	47.5	55.2	45.3	36.2	56.4	45.8	34.9	62.3	164.3	62.2
GREENE COUNTY	59	82.5	55.1	72.7	50.4	65.6	73.3	49.2	48.6	43.7	70.5	43.5	46.7	23.8	50.5	34.0	60.8	160.5	60.8
JONES COUNTY	43	65.3	51.1	59.5	36.3	56.2	59.7	39.2	38.8	32.9	34.5	36.5	36.4	43.5	45.8	27.9	49.8	131.9	50.0
LENOIR COUNTY	167	76.5	61.5	66.4	53.9	65.7	68.8	53.7	56.7	42.1	44.9	41.4	30.1	40.4	52.2	33.8	60.3	159.0	60.2
KINSTON CITY	160	82.3	68.9	74.4	69.0	73.7	80.1	71.2	73.6	59.4	65.8	64.4	41.2	53.7	53.7	40.5	72.3	191.1	72.4
NEW HANOVER COUNT	773	80.7	67.3	74.3	58.4	69.4	75.1	62.0	67.7	54.7	70.9	53.0	49.6	52.4	54.8	37.9	67.7	178.6	67.7
ONSLOW COUNTY	546	77.3	66.9	70.5	55.1	68.9	70.2	51.3	57.0	43.6	60.0	52.5	47.1	51.2	56.5	35.3	63.0	166.8	63.2
PAMLICO COUNTY	50	75.7	56.1	70.2	51.2	60.7	73.6	48.3	64.9	44.9	63.2	42.5	49.0	64.1	50.6	34.3	61.2	163.2	61.8
PENDER COUNTY	117	74.2	60.7	66.4	58.5	58.4	63.7	43.5	48.5	40.5	46.0	48.1	42.7	43.0	49.0	32.5	58.0	153.2	58.0
SAMPSON COUNTY	197	70.7	57.2	59.7	39.3	54.3	62.5	43.1	38.4	31.8	43.1	36.0	30.9	37.0	37.1	28.8	51.3	135.7	51.4
CLINTON CITY	55	84.5	70.3	79.2	67.9	72.1	82.8	70.8	71.1	70.6	71.2	63.0	47.8	68.5	57.6	41.9	74.8	197.2	74.7
WAYNE COUNTY	419	73.5	58.1	63.3	47.0	60.7	65.2	48.7	50.9	40.3	58.9	37.7	31.8	31.0	45.4	31.5	56.3	148.2	56.1
GOLDSBORO CITY	133	66.9	53.6	59.1	43.5	59.6	61.9	48.1	46.9	41.1	43.7	35.3	21.6	42.7	40.1	29.5	52.7	139.9	53.0

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 9, cont'd.

REGION CENTRAL

REGION REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
DURHAM COUNTY	717	83.4	74.0	76.8	67.1	73.8	78.1	63.3	67.7	56.4	73.1	61.0	54.7	55.6	61.2	40.0	71.4	188.5	71.4
DURHAM CITY	164	64.3	54.5	52.5	39.5	53.1	52.8	40.8	36.2	34.5	28.0	36.2	36.1	17.0	34.2	26.4	47.2	123.4	46.7
EDGECOMBE COUNTY	121	72.1	49.1	58.5	34.9	50.2	64.2	53.1	50.7	34.1	43.6	31.1	19.9	19.5	43.7	28.9	51.7	136.8	51.8
TARBORO CITY	105	83.0	63.6	72.1	62.2	64.3	75.4	64.2	59.9	52.5	71.0	48.4	35.0	20.5	52.0	36.6	65.3	172.7	65.4
FRANKLIN COUNTY	145	72.6	61.3	61.2	45.8	61.8	64.9	50.0	53.9	43.3	48.6	45.0	33.0	34.1	45.0	32.2	57.5	150.3	56.9
FRANKLINTON CITY	22	64.6	38.3	62.9	43.7	58.7	63.2	50.4	49.3	43.3	54.4	41.0	8.3	39.4	50.4	29.3	52.3	141.4	53.6
GRANVILLE COUNTY	199	79.4	69.2	72.4	62.9	71.8	74.7	67.5	67.7	55.2	70.0	53.2	30.0	38.8	50.4	37.9	67.7	179.1	67.9
HALIFAX COUNTY	131	60.8	41.5	50.7	42.6	42.4	59.0	42.0	36.9	30.4	30.0	31.2	30.2	21.6	36.9	25.6	45.7	120.7	45.7
ROANOKE RPDS CITY	94	80.2	72.2	69.7	57.2	72.0	69.1	61.0	62.5	47.5	63.8	64.3	55.6	64.8	55.5	37.3	66.6	176.0	66.7
WELDON CITY	29	53.1	35.0	52.0	32.8	29.4	47.3	29.9	47.0	29.0	36.3	26.0	34.8	42.0	21.2	21.7	38.7	105.3	39.9
JOHNSTON COUNTY	494	82.5	70.3	71.5	60.6	71.7	74.4	57.1	61.3	54.9	61.8	55.1	46.0	50.0	58.7	37.5	67.0	177.0	67.0
NASH COUNTY	318	77.0	62.1	72.7	56.9	66.3	70.1	55.8	64.2	52.2	69.7	46.6	46.8	32.3	52.3	35.6	63.7	167.3	63.4
ROCKY MOUNT CITY	184	86.8	72.8	77.9	65.5	77.7	82.1	69.2	74.0	58.2	74.0	60.2	60.1	54.6	66.9	41.7	74.4	195.6	74.1
NORTHAMPTON COUNT	115	73.2	60.1	59.8	51.6	60.3	63.3	49.0	37.4	39.4	48.3	44.3	31.0	23.9	45.8	30.7	54.8	144.6	54.8
VANCE COUNTY	187	78.1	64.5	69.9	52.1	65.4	75.2	54.4	61.1	41.8	64.2	44.0	40.4	52.5	48.0	35.5	63.4	166.8	63.2
WAKE COUNTY	2874	84.4	72.6	77.2	66.5	76.1	77.9	65.5	71.8	56.9	71.8	63.1	55.7	57.9	63.6	40.6	72.4	191.2	72.4
WARREN COUNTY	55	81.8	66.3	71.1	51.8	64.9	71.0	47.5	61.2	52.5	60.3	38.2	42.9	55.1	52.9	35.0	62.5	164.6	62.4
WILSON COUNTY	368	81.8	67.4	73.3	59.8	68.9	73.2	60.7	64.6	52.3	76.1	55.4	47.7	49.9	50.3	37.6	67.2	176.5	66.9

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 9, cont'd.

REGION SOUTH CENTRAL

REGION REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION
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GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
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GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
BLADEN COUNTY	153	67.9	53.4	59.4	42.8	57.4	65.6	42.0	48.1	35.2	58.2	34.0	24.4	23.6	37.7	29.4	52.5	138.8	52.6
COLUMBUS COUNTY	157	74.3	58.7	62.7	44.9	59.3	66.4	48.9	52.9	42.4	59.2	39.2	37.2	26.9	42.0	31.5	56.3	148.8	56.4
WHITEVILLE CITY	184	77.9	57.1	77.2	55.2	70.5	77.8	63.0	57.4	58.1	70.5	52.7	55.0	66.0	59.1	37.3	66.6	177.5	67.2
CUMBERLAND COUNTY	1387	80.6	64.7	73.4	57.2	66.2	73.9	61.2	64.4	55.6	69.9	51.2	44.9	44.0	51.0	37.0	66.0	174.1	66.0
HARNETT COUNTY	250	77.0	62.0	68.3	61.4	57.8	74.3	56.5	68.1	53.6	60.1	52.2	43.3	46.7	49.0	36.0	64.3	169.0	64.3
HOKE COUNTY	142	73.1	62.4	65.5	50.9	58.6	67.6	52.0	58.7	42.8	65.5	53.1	47.4	38.3	38.9	33.5	59.0	157.4	59.6
LEE COUNTY	201	78.9	73.0	69.1	58.5	68.1	70.4	52.0	60.6	59.5	69.7	55.4	41.6	49.1	52.1	36.4	65.0	171.5	64.9
MONTGOMERY COUNTY	156	82.7	67.7	72.5	60.5	70.4	73.5	62.0	67.0	57.3	73.2	50.3	34.7	53.5	56.2	38.1	68.0	179.5	68.0
MOORE COUNTY	244	79.5	63.9	70.9	54.1	69.9	70.0	59.4	59.0	50.2	59.1	48.4	59.0	43.1	56.6	35.9	64.2	169.1	64.1
RICHMOND COUNTY	255	70.9	56.0	62.6	40.0	51.7	63.1	47.0	49.7	37.0	50.2	43.1	25.0	47.6	43.0	30.2	53.9	142.0	54.1
ROBESON COUNTY	279	68.9	49.6	61.4	45.5	52.6	63.9	43.6	45.1	38.1	47.9	37.1	33.4	23.9	42.3	29.4	52.6	138.2	52.4
FAIRMONT CITY	51	62.1	52.4	61.2	48.5	50.2	67.9	52.1	55.0	55.0	66.0	36.5	19.9	31.7	39.2	30.9	55.3	145.7	55.2
LUMBERTON CITY	160	74.3	56.5	65.0	47.6	62.3	60.5	52.3	57.0	40.6	64.5	44.4	34.1	45.9	53.1	32.2	57.5	151.0	57.5
RED SPRINGS	46	68.2	44.0	54.7	37.9	52.3	52.9	37.2	31.6	39.3	26.3	34.0	29.9	47.6	28.4	26.1	46.7	122.2	46.3
SAINT PAULS CITY	28	78.0	70.3	73.5	50.0	63.6	73.7	53.3	56.7	34.0	73.0	53.5	27.1	55.0	56.7	36.1	64.5	168.6	63.9
SCOTLAND COUNTY	267	77.4	59.4	66.6	57.9	66.9	71.9	54.4	60.3	46.6	58.3	53.0	35.2	63.3	45.9	35.3	63.1	166.0	63.2

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 9, cont'd.

REGION NORTH CENTRAL

REGION REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
ALAMANCE COUNTY	391	76.4	60.9	68.3	50.6	63.2	67.1	52.2	56.7	47.0	56.0	40.5	40.9	50.3	47.3	33.5	59.8	157.9	59.8
BURLINGTON CITY	331	81.7	65.3	74.0	60.1	69.1	74.1	63.3	75.6	55.6	67.9	58.4	51.2	71.2	56.0	38.9	69.4	182.6	69.2
CASWELL COUNTY	96	70.7	57.4	63.5	47.9	55.8	59.8	38.8	48.5	33.7	55.4	40.8	40.5	31.7	39.4	30.1	53.7	140.3	53.2
CHATHAM COUNTY	183	85.4	72.2	76.4	66.8	69.5	78.4	63.3	73.2	56.6	74.2	63.3	49.4	65.0	60.8	40.4	72.1	189.9	71.9
DAVIDSON COUNTY	631	68.3	55.7	62.0	47.7	58.4	62.0	44.2	44.8	38.8	45.5	45.1	31.7	35.4	46.7	30.3	54.1	142.8	54.1
LEXINGTON CITY	102	69.5	56.8	59.7	41.5	63.9	61.4	41.6	46.4	42.0	43.1	40.9	26.0	38.7	57.5	30.0	53.6	142.5	54.0
THOMASVILLE CITY	69	78.7	63.4	71.9	58.3	71.7	71.4	56.2	70.1	54.0	76.5	55.7	61.8	56.4	62.6	37.6	67.2	176.2	66.7
FORSYTH COUNTY	1451	82.0	69.2	76.2	60.6	71.9	75.7	63.3	68.8	56.0	73.0	54.7	52.7	60.2	54.5	38.8	69.2	182.8	69.2
GUILFORD COUNTY	962	82.9	69.0	76.3	64.4	73.3	79.2	66.2	72.6	54.8	73.3	58.9	49.7	58.2	60.8	39.9	71.2	188.1	71.2
GREENSBORO CITY	1016	78.0	60.7	69.5	62.5	64.8	72.3	59.0	64.0	48.0	60.0	53.3	45.7	58.5	54.7	36.3	64.8	170.9	64.7
HIGH POINT CITY	253	78.7	73.0	72.9	67.4	67.1	73.4	60.7	64.4	49.8	69.1	56.9	46.1	63.4	49.1	37.8	67.5	178.4	67.6
ORANGE COUNTY	146	76.1	62.0	68.4	46.2	64.2	63.0	47.9	51.5	39.9	55.1	48.6	48.8	55.2	49.6	32.8	58.5	154.6	58.6
CHAPEL HILL CITY	227	93.9	88.3	89.0	85.4	89.6	90.6	86.1	89.9	81.0	88.9	86.4	70.9	85.6	79.1	49.5	88.3	233.2	88.3
PERSON COUNTY	164	84.7	74.0	78.3	62.4	76.6	77.0	64.3	69.2	51.3	57.7	66.6	59.6	61.4	67.5	40.3	72.0	190.1	72.0
RANDOLPH COUNTY	351	79.0	65.4	71.1	53.6	68.7	74.7	57.3	62.6	51.8	66.9	50.0	41.4	36.6	57.9	36.4	65.0	171.5	64.9
ASHEBORO CITY	140	79.1	68.5	72.0	61.6	70.9	74.0	61.9	63.9	52.4	62.6	52.3	56.4	53.0	62.7	37.6	67.2	177.4	67.2
ROCKINGHAM COUNTY	123	79.2	69.0	70.3	54.8	67.4	71.2	61.2	60.1	48.0	67.0	50.1	44.6	26.6	57.5	36.2	64.6	169.4	64.2
EDEN CITY	139	84.5	73.1	77.3	66.9	76.8	73.3	56.9	66.0	54.6	71.7	64.4	59.0	65.6	54.6	39.4	70.3	185.6	70.3
WEST. ROCKINGHAM	107	81.0	71.4	70.0	61.9	67.0	74.2	62.7	66.7	57.0	61.3	52.7	42.4	57.4	45.9	37.8	67.6	177.0	67.0
REIDSVILLE CITY	91	82.3	74.0	74.4	65.6	75.9	75.6	53.8	59.5	55.2	70.7	62.0	53.5	53.1	58.0	38.2	68.1	181.9	68.9
STOKES COUNTY	210	76.2	62.2	66.4	49.3	58.5	69.5	57.2	61.9	45.4	67.9	47.9	41.2	26.0	48.9	34.0	60.7	160.2	60.7

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 9, cont'd.

REGION SOUTHWEST

REGION REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
ANSON COUNTY	185	65.2	52.8	58.9	39.9	52.8	62.9	48.1	53.3	39.4	63.7	31.9	27.8	23.1	44.4	29.2	52.1	138.1	52.3
CABARRUS COUNTY	492	79.9	70.6	71.5	60.9	67.8	74.5	67.0	65.6	53.7	62.5	59.4	52.0	58.2	55.0	38.1	68.0	180.0	68.2
KANNAPOLIS CITY	174	65.9	48.4	59.2	47.7	56.6	59.2	40.6	47.3	41.2	46.7	34.4	29.1	50.1	37.5	28.9	51.6	136.1	51.6
CLEVELAND COUNTY	225	76.8	65.8	72.2	62.6	68.0	72.7	57.7	64.7	47.6	66.5	52.9	36.8	32.7	54.9	36.4	65.0	172.1	65.2
KINGS MTN. CITY	103	77.8	65.3	68.6	61.2	67.6	70.0	57.7	50.5	54.0	59.0	51.7	42.3	67.7	55.6	35.7	63.8	168.4	63.8
SHELBY CITY	157	76.5	62.5	68.8	58.5	68.2	68.2	50.5	59.1	57.5	67.5	51.3	46.0	41.4	57.4	35.0	62.6	165.7	62.8
GASTON COUNTY	915	75.3	56.9	67.2	48.8	63.1	69.2	50.6	58.6	48.1	62.7	40.6	39.9	31.5	49.7	33.2	59.3	156.8	59.4
LINCOLN COUNTY	298	73.8	54.2	66.0	47.8	59.7	66.7	51.8	57.9	44.3	58.6	39.3	34.3	28.3	46.8	32.5	58.0	152.1	57.6
MECKLENBURG COUNT	2715	79.2	65.7	71.1	56.2	65.8	70.7	57.1	59.6	46.7	60.2	51.0	49.5	46.2	54.4	35.9	64.0	168.5	63.8
ROWAN COUNTY	548	76.8	58.7	68.6	49.8	65.4	68.9	50.5	58.8	43.3	59.1	43.9	36.7	50.7	48.8	34.0	60.7	159.7	60.5
SALISBURY CITY	187	76.1	58.2	61.0	43.8	57.3	60.2	46.9	50.3	34.2	44.5	46.4	32.8	50.2	40.5	30.8	55.0	144.8	54.9
STANLY COUNTY	142	77.6	58.4	69.0	49.9	62.7	68.1	50.7	51.7	41.9	55.0	41.7	38.0	55.4	46.1	33.0	58.9	156.6	59.3
ALBEMARLE CITY	53	82.3	66.0	74.1	67.4	68.8	77.7	63.4	67.4	58.3	79.4	60.6	41.1	23.5	54.1	38.8	69.4	182.2	69.0
UNION COUNTY	353	80.9	68.1	70.9	57.4	70.7	71.4	54.9	57.0	49.8	59.5	52.6	49.0	47.3	60.6	36.2	64.6	171.0	64.8
MONROE CITY	111	76.3	69.3	71.2	58.3	68.4	74.9	57.5	61.4	47.2	67.3	52.1	37.6	45.1	54.0	36.4	65.0	172.5	65.3

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 9, cont'd.

REGION NORTHWEST — REGION REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
ALEXANDER COUNTY	162	77.3	65.6	66.1	55.0	65.9	71.6	52.3	56.5	46.3	53.8	49.2	18.7	24.3	52.8	34.3	61.3	162.3	61.5
ALLEGHANY COUNTY	41	75.1	71.3	70.9	69.6	69.1	72.1	56.5	66.5	65.9	57.7	64.7	34.1	61.6	58.9	37.8	67.4	179.5	68.0
ASHE COUNTY	137	81.9	69.0	72.1	60.5	67.9	75.2	65.5	70.0	59.2	68.5	54.4	64.5	50.4	62.5	38.2	68.1	181.4	68.7
AVERY COUNTY	85	69.1	56.1	60.4	57.2	54.9	63.5	39.7	40.1	42.9	38.3	43.5	36.2	26.7	39.5	30.0	53.6	141.2	53.5
BURKE COUNTY	343	79.6	65.4	73.0	56.8	69.1	71.6	57.8	67.8	48.6	66.1	53.0	47.2	63.3	54.0	36.9	66.0	174.3	66.0
CALDWELL COUNTY	331	80.9	68.7	73.6	58.0	73.3	72.4	59.4	62.0	52.6	65.0	53.5	53.4	41.0	61.3	37.3	66.6	175.8	66.6
CATAWBA COUNTY	518	81.9	72.1	74.9	61.6	74.4	79.1	67.0	70.6	59.3	71.8	60.5	45.1	54.6	59.2	39.7	70.8	188.1	71.3
HICKORY CITY	183	87.9	77.1	78.7	72.8	81.3	80.0	72.2	67.3	67.2	71.6	68.5	49.5	31.7	66.4	42.1	75.2	198.0	75.0
NEWTON CITY	87	77.9	59.3	69.2	52.1	63.9	67.0	42.4	55.1	42.5	50.3	56.2	39.6	48.4	57.5	33.7	60.1	159.3	60.3
DAVIE COUNTY	158	78.2	68.1	71.8	56.8	67.3	74.7	63.6	62.4	59.8	66.5	56.8	52.5	45.2	59.7	37.4	66.8	176.6	66.9
IREDELL COUNTY	355	73.8	55.5	63.1	46.6	56.5	63.6	44.5	50.6	45.4	61.9	42.5	34.3	32.4	48.4	31.2	55.7	146.6	55.5
MOORESVILLE CITY	110	73.8	54.6	67.4	43.3	65.1	63.7	37.9	59.3	48.8	55.2	36.3	35.0	57.2	48.1	31.8	56.8	149.9	56.8
STATESVILLE CITY	135	81.3	63.7	73.9	61.6	71.6	77.0	66.6	67.8	57.8	70.5	54.2	33.0	42.7	62.0	38.4	68.5	181.5	68.7
SURRY COUNTY	194	74.7	63.3	68.5	53.6	68.6	70.8	58.2	57.5	40.9	50.9	51.5	42.4	19.6	58.2	33.8	68.3	159.7	60.5
ELKIN CITY	54	80.7	59.9	72.8	58.2	70.5	70.4	49.5	58.4	40.8	55.7	45.1	29.1	59.3	53.5	35.2	62.9	166.1	62.9
MOUNT AIRY CITY	66	77.1	61.8	67.7	51.8	69.7	71.5	61.1	59.7	49.8	79.7	46.1	9.4	39.4	49.2	34.6	61.9	165.9	62.8
WATAUGA COUNTY	149	87.1	82.9	80.4	73.7	79.6	85.9	78.7	81.0	71.4	82.1	71.7	62.4	53.3	56.9	44.3	79.1	209.1	79.2
WILKES COUNTY	300	71.2	63.2	60.6	49.4	56.4	61.6	42.3	47.8	37.2	44.1	45.2	33.9	38.4	49.5	30.6	54.7	144.6	54.8
YADKIN COUNTY	138	73.7	60.7	70.3	59.7	68.8	71.0	56.9	60.7	50.1	68.0	50.6	42.6	40.2	52.7	35.4	63.3	167.7	63.5

NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Table 9, cont'd.

REGION WESTERN

REGION REPORT

GOALS

GOAL 1: USE THE LANGUAGE OF ALGEBRA
GOAL 2: LOCATE NUMBERS ON NUMBER LINE AND COORDINATE PLANE
GOAL 3: PERFORM OPERATIONS WITH REAL NUMBERS
GOAL 4: SOLVE LINEAR EQUATIONS AND INEQUALITIES
GOAL 5: SOLVE SYSTEMS OF LINEAR EQUATIONS
GOAL 6: PERFORM OPERATIONS WITH POLYNOMIALS
GOAL 7: PERFORM OPERATIONS WITH ALGEBRAIC FRACTIONS
GOAL 8: SOLVE PROBLEMS INVOLVING RADICAL EXPRESSION
GOAL 9: SOLVE QUADRATIC EQUATIONS
GOAL 10: SOLVE PROBLEMS INVOLVING COMPLEX NUMBERS
GOAL 11: USE ANALYTIC GEOMETRY TO SOLVE PROBLEMS
GOAL 12: SOLVE PROBLEMS INVOLVING VARIATION
GOAL 14: SOLVE PROBLEMS INVOLVING LOGARITHMIC AND EXPONENTIAL FUNCTIONS
GOAL 15: INVESTIGATE SOME TECHNIQUES FOR PROBLEM SOLVING

	NUMBER TESTED	GOAL 1	GOAL 2	GOAL 3	GOAL 4	GOAL 5	GOAL 6	GOAL 7	GOAL 8	GOAL 9	GOAL 10	GOAL 11	GOAL 12	GOAL 14	GOAL 15	AVG CORE	PCT CORE	AVG ALL ITEMS	PCT ALL ITEMS
NUMBER OF ITEMS		23	18	30	20	24	55	23	23	9	3	20	2	6	8	56	56	264	264
BUNCOMBE COUNTY	820	80.4	68.3	73.2	60.6	71.3	73.9	61.8	65.4	53.2	67.7	54.4	49.9	50.1	54.5	37.8	67.5	178.0	67.4
ASHEVILLE CITY	198	74.4	63.3	64.7	50.4	64.2	64.1	53.9	56.5	42.8	56.0	48.8	45.3	41.7	45.8	33.5	59.8	156.4	59.2
CHEROKEE COUNTY	131	71.9	57.1	65.4	47.6	59.2	62.1	45.9	49.8	40.9	60.8	34.4	36.9	42.6	45.2	30.9	55.2	145.6	55.2
CLAY COUNTY	33	80.7	71.8	79.7	63.4	78.8	78.3	65.3	69.8	50.9	55.6	58.8	59.7	45.4	65.8	39.4	70.3	188.1	71.3
GRAHAM COUNTY	51	72.4	66.7	73.6	66.0	70.1	75.7	63.0	51.9	55.8	63.9	59.8	47.8	58.7	59.7	36.9	65.9	177.0	67.0
HAYWOOD COUNTY	265	79.1	65.9	71.8	56.1	67.0	72.4	60.2	60.8	47.7	55.2	46.5	45.0	59.2	58.2	36.1	64.5	170.9	64.7
HENDERSON COUNTY	353	78.2	66.0	73.4	59.8	68.9	73.9	58.8	63.7	53.0	65.3	53.5	52.5	54.1	53.9	37.2	66.4	175.2	66.4
HENDERSONVILLE CITY	115	77.9	64.7	71.2	60.7	64.1	70.6	60.0	60.9	39.2	67.6	51.9	48.0	46.8	44.5	35.9	64.1	168.3	63.8
JACKSON COUNTY	164	80.8	64.1	71.8	56.5	65.8	73.5	59.6	57.6	51.4	68.3	49.1	34.9	42.9	56.0	36.1	64.4	169.8	64.3
MACON COUNTY	121	83.2	66.7	77.0	58.1	77.0	77.3	61.3	72.7	60.8	74.7	63.7	53.1	69.8	64.3	39.9	71.3	188.5	71.4
MADISON COUNTY	63	82.8	74.5	76.8	62.7	78.6	73.6	59.8	73.8	57.2	70.5	59.4	62.8	55.6	65.3	39.8	71.0	186.8	70.8
MCDOWELL COUNTY	202	76.2	59.6	70.3	55.8	64.5	67.2	50.9	56.8	41.8	58.2	49.7	42.3	42.1	55.3	34.1	60.8	160.7	60.9
MITCHELL COUNTY	68	70.6	56.9	60.6	46.2	60.8	64.7	43.7	46.3	34.8	41.2	50.9	35.3	39.2	44.1	30.9	55.2	145.8	55.2
POLK COUNTY	41	73.6	66.9	63.8	48.4	57.1	61.6	44.4	51.6	40.9	58.8	53.2	50.5	31.8	35.7	31.5	56.3	149.8	56.5
TRYON CITY	29	75.1	63.7	73.1	53.2	69.9	65.5	52.3	62.9	56.4	75.2	48.1	52.7	17.2	46.4	34.9	62.3	163.3	61.9
RUTHERFORD COUNTY	238	81.8	65.8	74.1	59.3	68.7	74.6	66.1	68.8	54.2	67.2	53.5	53.6	63.2	60.5	38.2	68.3	180.3	68.3
SWAIN COUNTY	51	78.1	71.8	68.5	49.7	68.7	73.1	54.7	54.3	51.4	55.6	42.7	47.8	44.9	51.8	35.4	63.3	165.6	62.7
TRANSYLVANIA COUN	112	74.4	64.8	65.6	56.8	57.8	69.1	50.3	53.7	44.4	55.9	47.6	34.4	38.1	48.3	33.7	60.2	157.5	59.7
YANCEY COUNTY	101	75.1	64.3	63.5	63.7	62.8	72.4	61.4	63.8	57.3	66.1	59.4	39.4	40.5	57.4	36.5	65.2	171.1	64.8

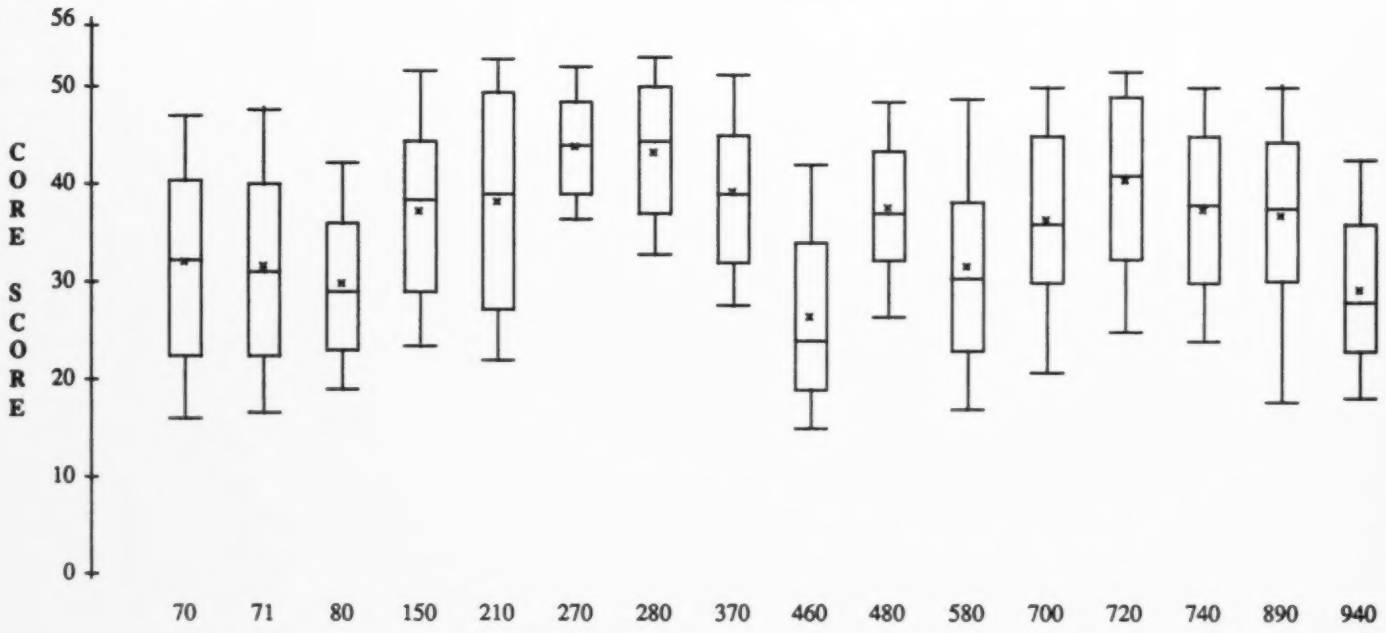
NOTE: THE NUMBER OF ITEMS MEASURING EACH GOAL WILL VARY ACROSS YEARS. THE NUMBER OF ITEMS IN EACH GOAL AREA IS DIRECTLY PROPORTIONAL TO THE NUMBER OF OBJECTIVES FOR THE GOAL. FOUR FORMS OF A 66-ITEM TEST WERE ADMINISTERED IN EVERY CLASSROOM. FIFTY-SIX OF THE SIXTY-SIX ITEMS WERE EQUATED ACROSS THE FOUR FORMS (CORE). THE REMAINING 10 ITEMS VARIED BY FORM, SO THAT 264 ITEMS WERE MEASURED IN EVERY CLASSROOM. GOAL AREAS INCLUDE BOTH CORE AND VARIABLE ITEMS.

Figure 7. Distributions of Algebra II Core Scores by Regions -- 1988

REGIONS :

1	Northeast	5	North Central
2	Southeast	6	Southwest
3	Central	7	Northwest
4	South Central	8	Western

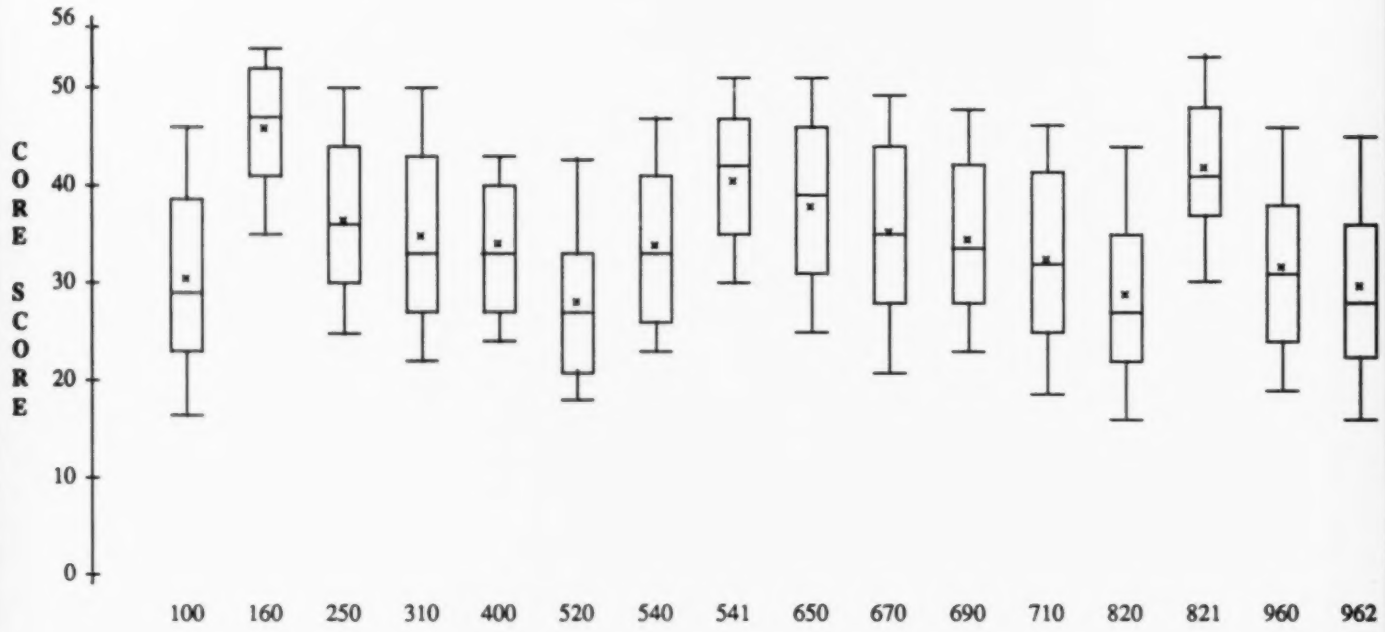
Figure 8. Distributions of Algebra II Core Scores by School Systems in the Northeast Region -- 1988



Northeast Region School Systems:

070 Beaufort Co.	210 Chowan Co.	460 Hertford Co.	720 Perquimans Co.
071 Washington City	270 Currituck Co.	480 Hyde Co.	740 Pitt Co.
080 Bertie Co.	280 Dare Co.	580 Martin Co.	890 Tyrrell Co.
150 Camden Co.	370 Gates Co.	700 Pasquotank Co.	940 Washington Co.

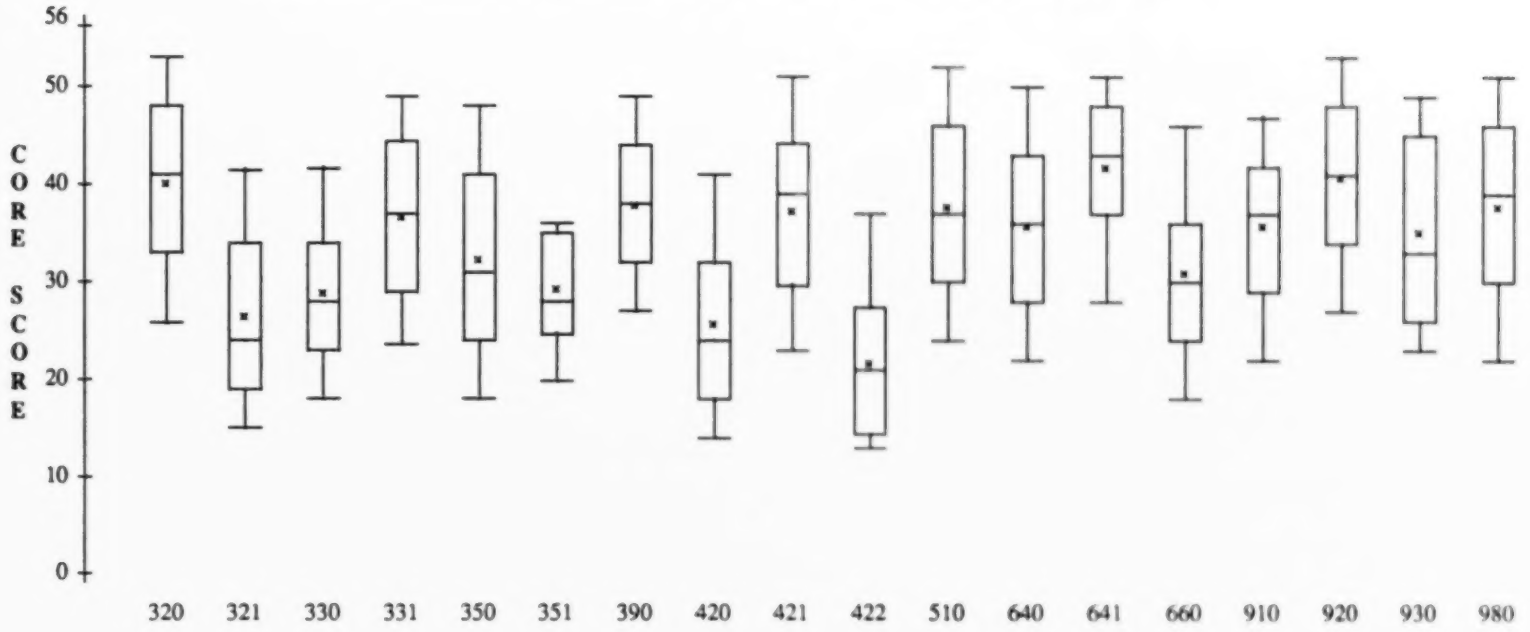
Figure 9. Distributions of Algebra II Core Scores by School Systems in the Southeast Region -- 1988



Southeast Region School Systems:

100 Brunswick Co.	400 Greene Co.	650 New Hanover Co.	820 Sampson Co.
160 Carteret Co.	520 Jones Co.	670 Onslow Co.	821 Clinton City
250 Craven Co.	540 Lenoir Co.	690 Pamlico Co.	960 Wayne Co.
310 Duplin Co.	541 Kinston City	710 Pender Co.	962 Goldsboro City

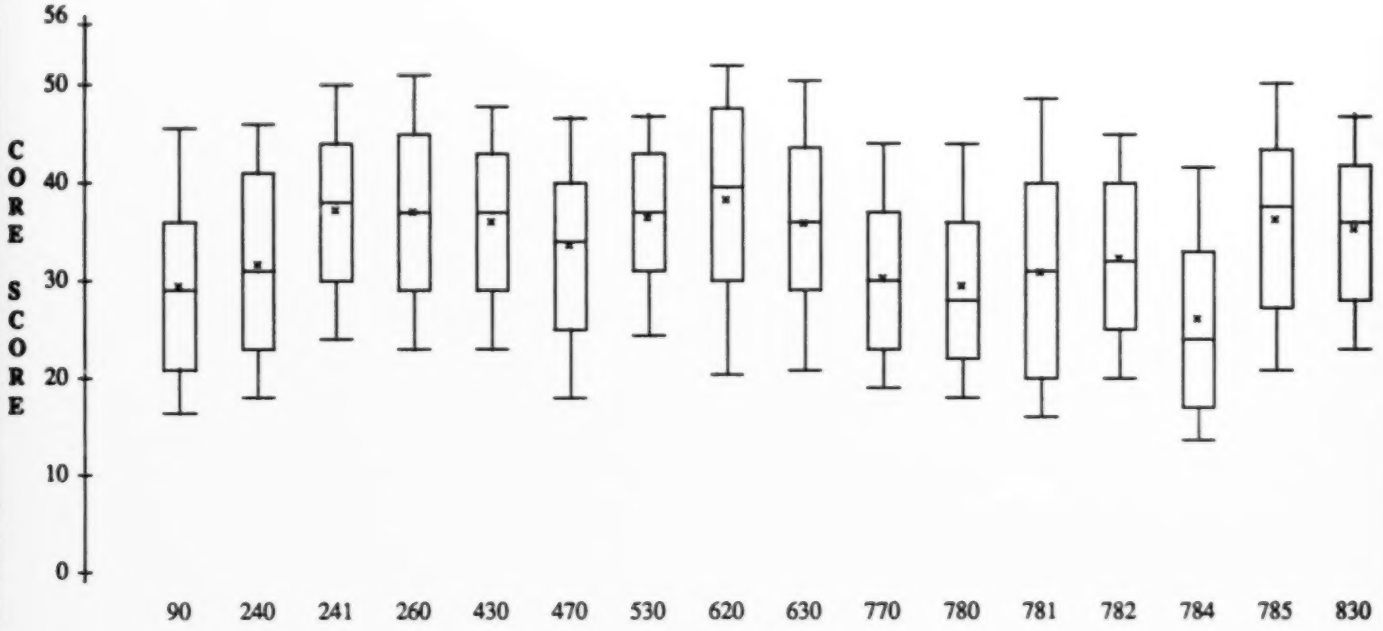
Figure 10. Distributions of Algebra II Core Scores by School Systems in the Central Region -- 1988



Central Region School Systems:

320 Durham Co.
321 Durham City
330 Edgecombe Co.
331 Tarboro City
350 Franklin Co.
351 Franklinton City
390 Granville Co.
420 Halifax Co.
421 Roanoke Rapids City
422 Weldon City
510 Johnston Co.
640 Nash Co.
641 Rocky Mount City
660 Northampton Co.
910 Vance Co.
920 Wake Co.
930 Warren Co.
980 Wilson Co.

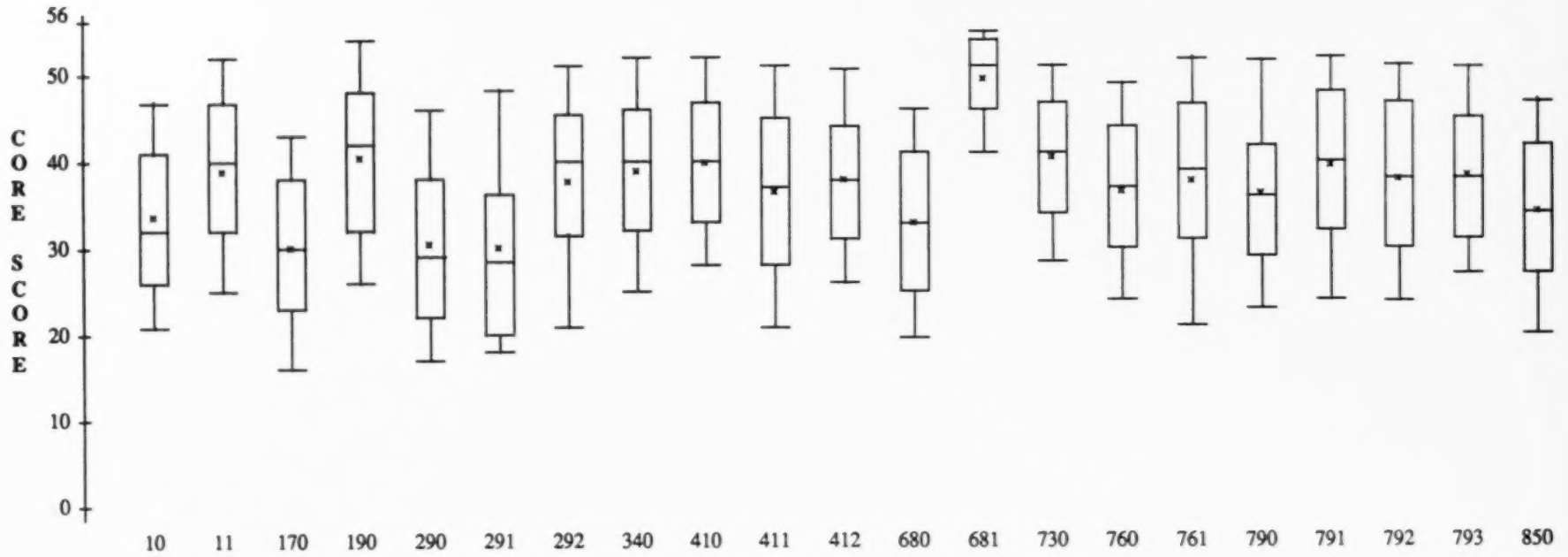
Figure 11. Distributions of Algebra II Core Scores by School Systems in the South Central Region -- 1988



South Central Region School Systems:

090 Bladen Co.	430 Harnett Co.	630 Moore Co.	782 Lumberton City
240 Columbus Co.	470 Hoke Co.	770 Richmond Co.	784 Red Springs City
241 Whiteville City	530 Lee Co.	780 Robeson Co.	785 St. Pauls City
260 Cumberland Co.	620 Montgomery Co.	781 Fairmont City	830 Scotland Co.

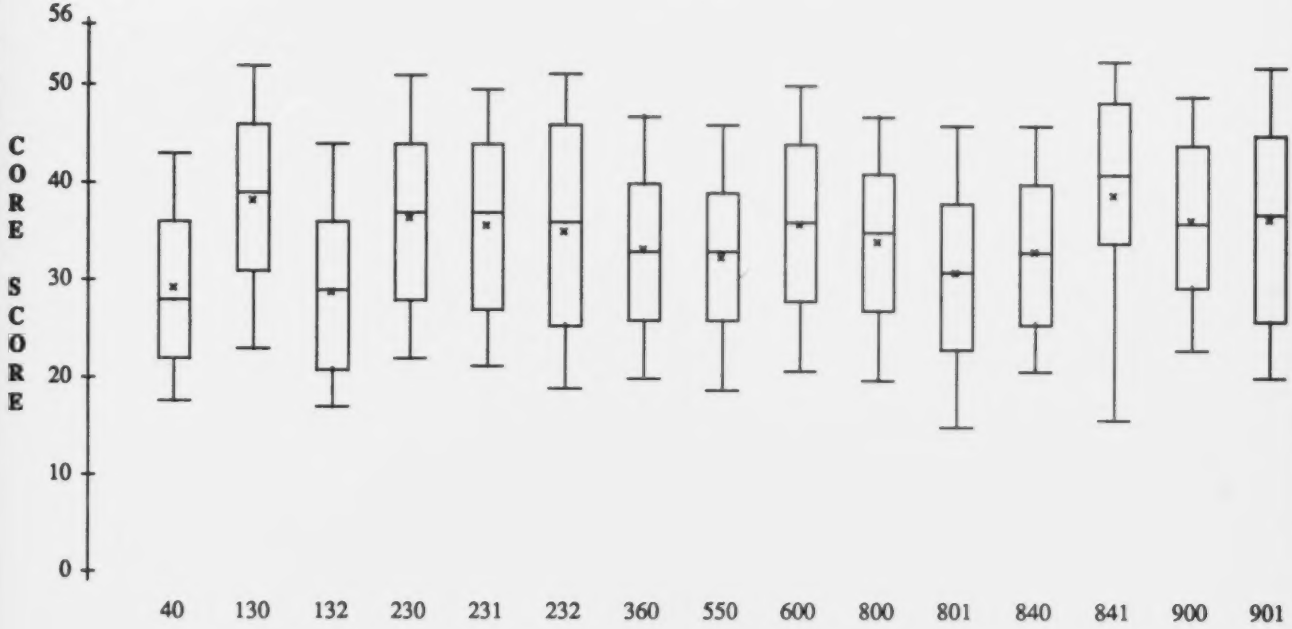
Figure 12. Distributions of Algebra II Core Scores by School Systems in the North Central Region -- 1988



North Central Region School Systems:

010 Alamance Co.	340 Forsyth Co.	760 Randolph Co.
011 Burlington City	410 Guilford Co.	761 Asheboro City
170 Caswell Co.	411 Greensboro City	790 Rockingham Co.
190 Chatham Co.	412 High Point City	791 Eden City
290 Davidson Co.	680 Orange Co.	792 Western Rockingham City
291 Lexington City	681 Chapel Hill City	793 Reidsville City
292 Thomasville City	730 Person Co.	850 Stokes Co.

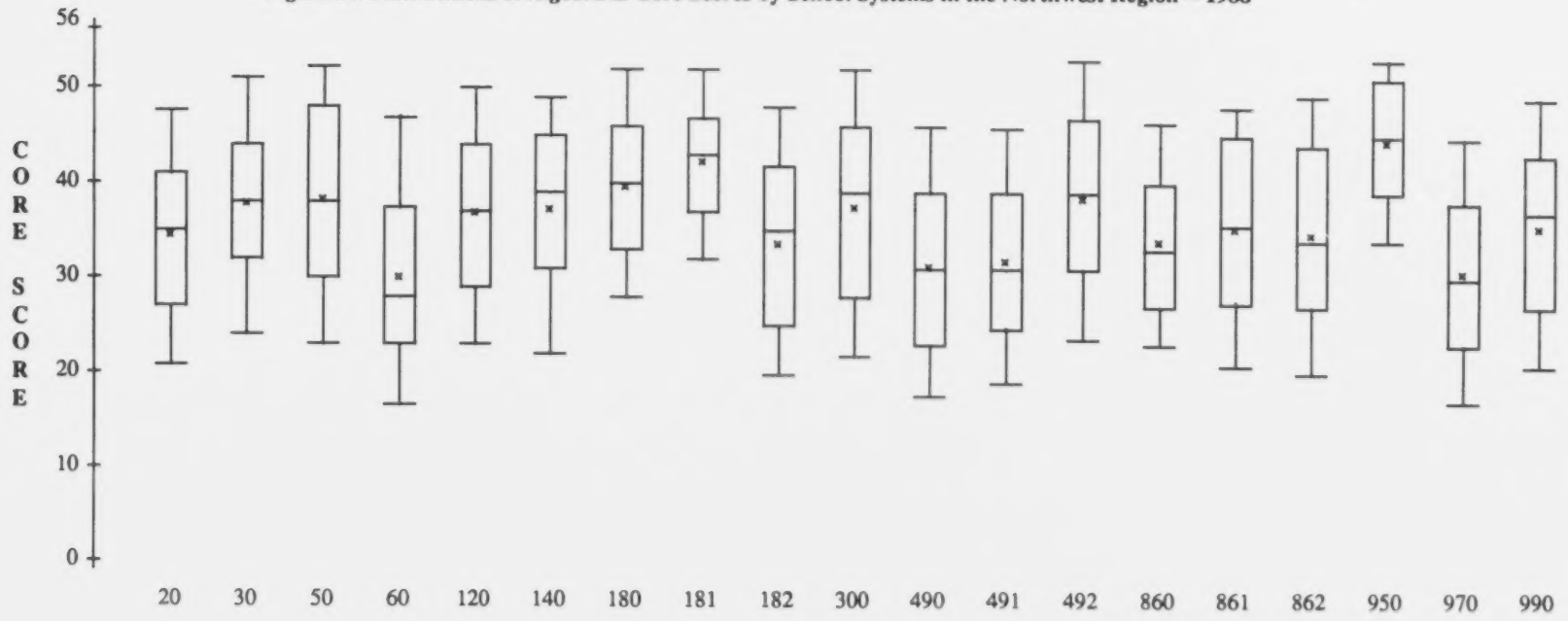
Figure 13. Distributions of Algebra II Core Scores by School Systems in the Southwest Region -- 1988



Southwest Region School Systems:

040 Anson Co.	232 Shelby City	801 Salisbury City
130 Cabarrus Co.	360 Gaston Co.	840 Stanly Co.
132 Kannapolis City	550 Lincoln Co.	841 Albemarle City
230 Cleveland Co.	600 Mecklenburg Co.	900 Union Co.
231 Kings Mountain City	800 Rowan Co.	901 Monroe City

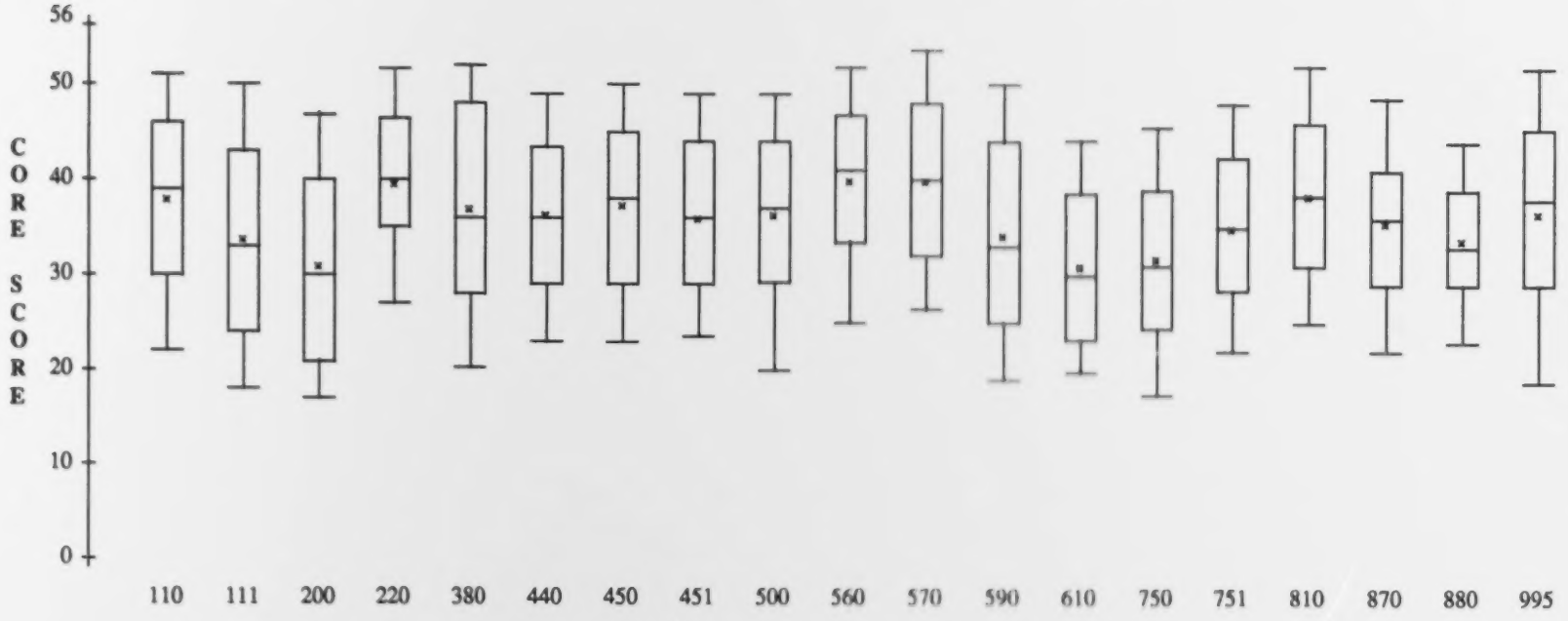
Figure 14. Distributions of Algebra II Core Scores by School Systems in the Northwest Region -- 1988



Northwest Region School Systems:

020 Alexander Co.	140 Caldwell Co.	490 Iredell Co.	862 Mt. Airy City
030 Alleghany Co.	180 Catawba Co.	491 Mooresville City	950 Watauga Co.
050 Ashe Co.	181 Hickory City	492 Statesville City	970 Wilkes Co.
060 Avery Co.	182 Newton-Conover City	860 Surry Co.	990 Yadkin Co.
120 Burke Co.	300 Davie Co.	861 Elkin City	

Figure 15. Distributions of Algebra II Core Scores by School Systems in the Western Region -- 1988



Western Region School Systems:

110 Buncombe Co.	440 Haywood Co.	570 Madison Co.	810 Rutherford Co.
111 Asheville City	450 Henderson Co.	590 McDowell Co.	870 Swain Co.
200 Cherokee Co.	451 Hendersonville City	610 Mitchell Co.	880 Transylvania Co.
220 Clay Co.	500 Jackson Co.	750 Polk Co.	995 Yancy Co.
380 Graham Co.	560 Macon Co.	751 Tryon City	

Table 10

Core Performance, Participation Rate, Yield, and Effective Yield
Algebra II: 1987-1988

REGION NORTHEAST

REGION REPORT

	1987				1988			
	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD
BEAUFORT COUNTY	31.8	37.8	21.5	15.5	31.9	42.5	24.2	17.8
WASHINGTON CITY	33.6	53.5	32.1	25.7	31.5	51.1	28.7	20.6
BERTIE COUNTY	33.1	36.4	21.5	18.1	29.8	40.1	21.3	16.0
CAMDEN COUNTY	33.4	49.5	29.5	24.7	37.2	43.6	28.9	26.3
CHOWAN COUNTY	38.9	36.9	25.6	24.0	38.1	41.2	28.0	24.2
CURRITUCK COUNTY	47.0	21.3	17.9	17.9	43.8	26.4	20.7	20.3
DARE COUNTY	42.8	38.1	29.1	27.9	43.2	36.2	27.9	27.6
GATES COUNTY	37.7	31.0	20.9	20.4	39.1	55.5	38.7	37.0
HERTFORD COUNTY	32.8	23.5	13.8	11.9	26.4	23.3	11.0	6.0
HYDE COUNTY	37.0	30.9	20.4	17.6	37.7	31.2	21.0	19.2
MARTIN COUNTY	29.8	40.6	21.6	14.7	31.5	39.6	22.3	16.5
PASQUOTANK COUNTY	40.1	39.4	28.2	26.8	36.3	52.2	33.8	29.1
PERQUIMANS COUNTY	42.4	34.3	26.0	25.1	40.4	37.3	26.9	25.9
PITT COUNTY	38.6	47.1	32.5	29.7	37.5	42.4	28.4	26.0
TYRRELL COUNTY	28.9	19.6	10.1	8.3	36.8	29.0	19.0	16.9
WASHINGTON COUNTY	29.2	46.3	24.1	16.9	29.3	38.4	20.1	15.0

NOTE: PERCENT OF CLASS IS AN ESTIMATE OF ALGEBRA II PARTICIPATION CALCULATED BY DIVIDING THE TOTAL NUMBER OF ALGEBRA II STUDENTS BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. YIELD IS AN INDEX OF THE EFFECTIVENESS OF AN ALGEBRA II PROGRAM WHICH COMBINES PARTICIPATION AND PERFORMANCE. IT IS CALCULATED BY MULTIPLYING THE PERCENT OF A CLASS TAKING ALGEBRA II BY THE PERCENT OF CORE ITEMS ANSWERED CORRECTLY AND THEN MULTIPLYING BY 100. EFFECTIVE YIELD IS A SIMILAR INDEX WHICH COUNTS AS 'PARTICIPATING' IN ALGEBRA II ONLY THOSE STUDENTS WHOSE ACHIEVEMENT IS ESTIMATED TO BE PASSING.

Table 10, cont'd.

REGION SOUTHEAST — REGION REPORT

	1987				1988			
	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD
BRUNSWICK COUNTY	34.3	30.3	18.6	15.8	30.5	26.4	14.4	10.3
CARTERET COUNTY	41.2	27.3	20.1	19.0	45.8	27.1	22.2	22.0
NEW BERN-CRAVEN	39.9	32.0	22.8	21.8	36.5	34.3	22.4	20.6
DUPLIN COUNTY	38.1	34.3	23.3	22.0	34.9	33.9	21.1	18.4
GREENE COUNTY	36.9	23.4	15.4	14.6	34.0	22.6	13.7	12.6
JONES COUNTY	32.2	45.7	26.3	18.8	27.9	32.6	16.2	9.1
LENOIR COUNTY	33.1	35.1	20.7	17.5	33.8	29.6	17.9	15.7
KINSTON CITY	41.3	34.1	25.1	24.8	40.5	36.3	26.2	24.9
NEW HANOVER COUNT	41.1	46.1	33.8	32.9	37.9	52.9	35.8	33.0
ONSLOW COUNTY	36.9	37.8	24.9	22.4	35.3	39.8	25.1	21.5
PAMLICO COUNTY	36.5	38.4	25.0	23.2	34.3	24.5	15.0	13.5
PENDER COUNTY	33.5	23.2	13.9	11.0	32.5	24.7	14.3	11.5
SAMPSON COUNTY	30.6	31.2	17.0	12.8	28.8	36.5	18.7	12.7
CLINTON CITY	46.7	29.1	24.3	23.9	41.9	23.7	17.7	17.4
WAYNE COUNTY	34.2	51.3	31.3	26.5	31.5	40.4	22.8	17.6
GOLDSBORO CITY	35.1	31.6	19.8	17.6	29.5	38.1	20.1	14.6

NOTE: PERCENT OF CLASS IS AN ESTIMATE OF ALGEBRA II PARTICIPATION CALCULATED BY DIVIDING THE TOTAL NUMBER OF ALGEBRA II STUDENTS BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. YIELD IS AN INDEX OF THE EFFECTIVENESS OF AN ALGEBRA II PROGRAM WHICH COMBINES PARTICIPATION AND PERFORMANCE. IT IS CALCULATED BY MULTIPLYING THE PERCENT OF A CLASS TAKING ALGEBRA II BY THE PERCENT OF CORE ITEMS ANSWERED CORRECTLY AND THEN MULTIPLYING BY 100. EFFECTIVE YIELD IS A SIMILAR INDEX WHICH COUNTS AS 'PARTICIPATING' IN ALGEBRA II ONLY THOSE STUDENTS WHOSE ACHIEVEMENT IS ESTIMATED TO BE PASSING.

Table 10, cont'd.

REGION CENTRAL — REGION REPORT

	1987 AVERAGE CORE	1987 PERCENT OF CLASS	1987 YIELD	1987 EFFECTIVE YIELD	1988 AVERAGE CORE	1988 PERCENT OF CLASS	1988 YIELD	1988 EFFECTIVE YIELD
DURHAM COUNTY	40.5	50.8	36.7	34.8	40.0	50.9	36.3	33.7
DURHAM CITY	29.0	33.0	17.1	11.5	26.4	23.1	10.9	5.6
EDGECOMBE COUNTY	32.2	20.1	11.6	9.6	28.9	24.5	12.7	9.2
TARBORO CITY	43.6	37.8	29.4	28.5	36.6	42.7	27.9	25.2
FRANKLIN COUNTY	31.2	35.9	20.0	15.6	32.2	30.0	17.2	13.0
FRANKLINTON CITY	27.8	20.3	10.1	7.1	29.3	15.3	8.0	6.9
GRANVILLE COUNTY	39.5	38.9	27.5	26.4	37.9	33.1	22.4	20.9
HALIFAX COUNTY	26.6	29.9	14.2	8.3	25.6	19.9	9.1	4.7
ROANOKE RPDS CITY	39.3	52.5	36.8	34.3	37.3	40.9	27.2	23.8
WELDON CITY	24.7	15.1	6.7	3.9	21.7	31.5	12.2	5.0
JOHNSTON COUNTY	40.7	32.4	23.5	22.1	37.5	40.8	27.3	24.7
NASH COUNTY	35.6	30.0	19.1	15.9	35.6	34.7	22.1	19.0
ROCKY MOUNT CITY	45.2	42.1	34.0	34.0	41.7	41.8	31.1	29.6
NORTHAMPTON COUNT	35.5	29.2	18.5	16.2	30.7	35.0	19.2	14.5
VANCE COUNTY	36.6	23.2	15.2	14.0	35.5	33.2	21.0	18.4
WAKE COUNTY	41.3	59.6	43.9	42.0	40.6	61.4	44.5	42.2
WARREN COUNTY	32.9	10.7	6.3	6.1	35.0	17.5	10.9	9.3
WILSON COUNTY	36.8	32.3	21.2	19.4	37.6	32.3	21.7	19.3

NOTE: PERCENT OF CLASS IS AN ESTIMATE OF ALGEBRA II PARTICIPATION CALCULATED BY DIVIDING THE TOTAL NUMBER OF ALGEBRA II STUDENTS BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. YIELD IS AN INDEX OF THE EFFECTIVENESS OF AN ALGEBRA II PROGRAM WHICH COMBINES PARTICIPATION AND PERFORMANCE. IT IS CALCULATED BY MULTIPLYING THE PERCENT OF A CLASS TAKING ALGEBRA II BY THE PERCENT OF CORE ITEMS ANSWERED CORRECTLY AND THEN MULTIPLYING BY 100. EFFECTIVE YIELD IS A SIMILAR INDEX WHICH COUNTS AS 'PARTICIPATING' IN ALGEBRA II ONLY THOSE STUDENTS WHOSE ACHIEVEMENT IS ESTIMATED TO BE PASSING.

Table 10, cont'd.

REGION SOUTH CENTRAL — REGION REPORT

	1987				1988			
	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD
BLADEN COUNTY	30.0	33.8	18.1	12.9	29.4	30.1	15.8	10.6
COLUMBUS COUNTY	34.9	21.5	13.4	11.4	31.5	22.1	12.4	9.1
WHITEVILLE CITY	38.0	43.9	29.8	27.1	37.3	54.7	36.4	33.6
CUMBERLAND COUNTY	36.9	38.3	25.2	22.0	37.0	39.4	26.0	23.0
HARNETT COUNTY	37.4	32.5	21.7	19.7	36.0	25.3	16.3	14.4
HOKE COUNTY	38.9	22.6	15.7	14.6	33.5	37.0	22.1	17.9
LEE COUNTY	37.4	37.1	24.8	22.7	36.4	40.0	26.0	23.9
MONTGOMERY COUNTY	39.1	35.6	24.8	22.0	38.1	39.9	27.1	23.8
MOORE COUNTY	35.7	35.9	22.9	20.9	35.9	34.6	22.2	18.9
RICHMOND COUNTY	35.8	22.7	14.5	13.1	30.2	36.8	19.8	14.4
ROBESON COUNTY	32.3	22.8	13.2	10.5	29.4	20.6	10.8	7.5
FAIRMONT CITY	29.8	28.3	15.0	12.1	30.9	32.3	17.8	11.9
LUMBERTON CITY	33.8	47.2	28.5	22.5	32.2	52.3	30.1	23.3
RED SPRINGS	28.1	37.3	18.7	11.8	26.1	26.4	12.3	6.2
SAINT PAULS CITY	37.9	22.1	15.0	13.4	36.1	21.9	14.1	12.6
SCOTLAND COUNTY	37.7	45.1	30.4	28.7	35.3	43.0	27.1	24.0

NOTE: PERCENT OF CLASS IS AN ESTIMATE OF ALGEBRA II PARTICIPATION CALCULATED BY DIVIDING THE TOTAL NUMBER OF ALGEBRA II STUDENTS BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. YIELD IS AN INDEX OF THE EFFECTIVENESS OF AN ALGEBRA II PROGRAM WHICH COMBINES PARTICIPATION AND PERFORMANCE. IT IS CALCULATED BY MULTIPLYING THE PERCENT OF A CLASS TAKING ALGEBRA II BY THE PERCENT OF CORE ITEMS ANSWERED CORRECTLY AND THEN MULTIPLYING BY 100. EFFECTIVE YIELD IS A SIMILAR INDEX WHICH COUNTS AS 'PARTICIPATING' IN ALGEBRA II ONLY THOSE STUDENTS WHOSE ACHIEVEMENT IS ESTIMATED TO BE PASSING.

Table 10, cont'd.

REGION NORTH CENTRAL — REGION REPORT

	1987				1988			
	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD
ALAMANCE COUNTY	33.4	40.9	24.4	19.3	33.5	44.7	26.7	22.2
BURLINGTON CITY	37.3	51.2	34.1	30.5	38.9	58.7	40.7	37.9
CASWELL COUNTY	33.8	41.9	25.3	21.0	30.1	27.8	14.9	11.0
CHATHAM COUNTY	40.1	32.5	23.3	21.5	40.4	35.4	25.5	24.1
DAVIDSON COUNTY	33.7	39.5	23.7	19.3	30.3	47.0	25.4	17.6
LEXINGTON CITY	37.2	27.4	18.2	16.0	30.0	38.6	20.7	13.6
THOMASVILLE CITY	40.5	50.5	36.5	35.0	37.6	32.4	21.8	18.6
FORSYTH COUNTY	39.0	47.1	32.8	30.8	38.8	49.0	33.9	31.3
GUILFORD COUNTY	41.7	47.4	35.3	34.1	39.9	47.6	33.9	32.6
GREENSBORO CITY	38.7	56.7	39.2	35.1	36.3	59.9	38.8	33.2
HIGH POINT CITY	37.8	36.4	24.6	22.2	37.8	35.7	24.1	23.2
ORANGE COUNTY	34.2	34.2	20.9	18.2	32.8	38.8	22.7	18.2
CHAPEL HILL CITY	48.9	71.9	62.7	62.5	49.5	55.9	49.4	49.4
PERSON COUNTY	39.5	23.1	16.3	15.1	40.3	36.4	26.2	24.9
RANDOLPH COUNTY	36.0	30.0	19.3	16.9	36.4	30.9	20.1	18.4
ASHEBORO CITY	39.7	53.3	37.7	35.3	37.6	47.6	32.0	27.9
ROCKINGHAM COUNTY	40.2	19.9	14.3	13.3	36.2	37.8	24.4	21.8
EDEN CITY	40.2	35.7	25.6	24.5	39.4	45.1	31.7	29.4
WEST. ROCKINGHAM	38.7	33.2	23.0	21.1	37.8	30.5	20.6	18.7
REIDSVILLE CITY	33.7	51.7	31.1	26.1	38.2	31.3	21.3	20.4
STOKES COUNTY	33.0	34.6	20.4	16.4	34.0	37.4	22.7	18.8

NOTE: PERCENT OF CLASS IS AN ESTIMATE OF ALGEBRA II PARTICIPATION CALCULATED BY DIVIDING THE TOTAL NUMBER OF ALGEBRA II STUDENTS BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. YIELD IS AN INDEX OF THE EFFECTIVENESS OF AN ALGEBRA II PROGRAM WHICH COMBINES PARTICIPATION AND PERFORMANCE. IT IS CALCULATED BY MULTIPLYING THE PERCENT OF A CLASS TAKING ALGEBRA II BY THE PERCENT OF CORE ITEMS ANSWERED CORRECTLY AND THEN MULTIPLYING BY 100. EFFECTIVE YIELD IS A SIMILAR INDEX WHICH COUNTS AS 'PARTICIPATING' IN ALGEBRA II ONLY THOSE STUDENTS WHOSE ACHIEVEMENT IS ESTIMATED TO BE PASSING.

Table 10, cont'd.

REGION SOUTHWEST — REGION REPORT

	1987				1988			
	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD
ANSON COUNTY	31.8	33.9	19.3	15.6	29.2	48.1	25.1	17.7
CABARRUS COUNTY	40.9	41.4	30.2	29.1	38.1	45.6	31.0	27.6
KANNAPOLIS CITY	29.3	41.6	21.7	14.1	28.9	45.3	23.4	15.2
CLEVELAND COUNTY	41.8	30.9	23.0	22.1	36.4	34.3	22.3	19.5
KINGS MTN. CITY	36.8	27.8	18.3	17.1	35.7	31.7	20.2	17.3
SHELBY CITY	40.1	62.0	44.4	38.3	35.0	62.1	38.9	31.2
GASTON COUNTY	35.3	35.7	22.5	19.8	33.2	33.6	19.9	16.3
LINCOLN COUNTY	35.5	36.2	22.9	20.3	32.5	41.2	23.9	19.3
MECKLENBURG COUNT	37.6	47.1	31.6	28.6	35.9	46.6	29.8	25.7
ROWAN COUNTY	35.2	46.4	29.2	25.7	34.0	51.2	31.1	25.8
SALISBURY CITY	40.6	59.1	42.8	41.1	30.8	54.6	30.0	21.9
STANLY COUNTY	38.0	52.1	35.4	32.1	33.0	25.4	15.0	12.5
ALBEMARLE CITY	35.0	29.8	18.6	15.9	38.8	33.1	23.0	19.5
UNION COUNTY	39.3	22.8	16.0	15.0	36.2	30.0	19.4	17.4
MONROE CITY	29.3	31.4	16.4	10.4	36.4	42.5	27.6	23.1

NOTE: PERCENT OF CLASS IS AN ESTIMATE OF ALGEBRA II PARTICIPATION CALCULATED BY DIVIDING THE TOTAL NUMBER OF ALGEBRA II STUDENTS BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. YIELD IS AN INDEX OF THE EFFECTIVENESS OF AN ALGEBRA II PROGRAM WHICH COMBINES PARTICIPATION AND PERFORMANCE. IT IS CALCULATED BY MULTIPLYING THE PERCENT OF A CLASS TAKING ALGEBRA II BY THE PERCENT OF CORE ITEMS ANSWERED CORRECTLY AND THEN MULTIPLYING BY 100. EFFECTIVE YIELD IS A SIMILAR INDEX WHICH COUNTS AS 'PARTICIPATING' IN ALGEBRA II ONLY THOSE STUDENTS WHOSE ACHIEVEMENT IS ESTIMATED TO BE PASSING.

Table10, cont'd

REGION NORTHWEST — REGION REPORT

	1987				1988			
	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD
ALEXANDER COUNTY	37.9	44.2	29.9	28.0	34.3	42.4	26.0	22.1
ALLEGHANY COUNTY	38.6	38.6	26.6	25.7	37.8	29.7	20.0	18.6
ASHE COUNTY	37.8	36.2	24.5	22.7	38.2	42.3	28.8	25.9
AVERY COUNTY	33.7	24.1	14.5	11.1	30.0	34.8	18.7	13.6
BURKE COUNTY	37.5	36.0	24.1	22.0	36.9	36.1	23.8	21.3
CALDWELL COUNTY	37.9	25.3	17.1	15.6	37.3	32.4	21.6	19.2
CATAWBA COUNTY	40.4	38.7	27.9	26.7	39.7	47.3	33.5	32.0
HICKORY CITY	46.4	33.5	27.8	27.6	42.1	41.5	31.2	30.5
NEWTON CITY	38.6	62.6	43.2	38.4	33.7	39.9	24.0	19.3
DAVIE COUNTY	38.9	46.5	32.3	29.1	37.4	38.1	25.4	21.6
IREDELL COUNTY	34.3	38.5	23.6	19.6	31.2	40.1	22.3	16.5
MOORESVILLE CITY	36.6	51.9	33.9	31.2	31.8	57.0	32.4	25.3
STATESVILLE CITY	35.3	30.1	19.0	17.8	38.4	48.9	33.5	30.3
SURRY COUNTY	35.8	27.1	17.3	15.2	33.8	28.0	16.9	14.7
ELKIN CITY	32.2	40.7	23.4	16.8	35.2	70.1	44.1	36.7
MOUNT AIRY CITY	39.0	46.7	32.5	29.3	34.6	48.2	29.8	25.3
WATAUGA COUNTY	44.7	43.0	34.3	33.3	44.3	38.4	30.4	30.2
WILKES COUNTY	35.2	30.2	19.0	16.6	30.6	33.3	18.2	13.4
YADKIN COUNTY	35.7	31.9	20.3	17.7	35.4	33.1	21.0	17.6

NOTE: PERCENT OF CLASS IS AN ESTIMATE OF ALGEBRA II PARTICIPATION CALCULATED BY DIVIDING THE TOTAL NUMBER OF ALGEBRA II STUDENTS BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. YIELD IS AN INDEX OF THE EFFECTIVENESS OF AN ALGEBRA II PROGRAM WHICH COMBINES PARTICIPATION AND PERFORMANCE. IT IS CALCULATED BY MULTIPLYING THE PERCENT OF A CLASS TAKING ALGEBRA II BY THE PERCENT OF CORE ITEMS ANSWERED CORRECTLY AND THEN MULTIPLYING BY 100. EFFECTIVE YIELD IS A SIMILAR INDEX WHICH COUNTS AS 'PARTICIPATING' IN ALGEBRA II ONLY THOSE STUDENTS WHOSE ACHIEVEMENT IS ESTIMATED TO BE PASSING.

Table 10, cont'd.

REGION WESTERN — REGION REPORT

	1987				1988			
	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD	AVERAGE CORE	PERCENT OF CLASS	YIELD	EFFECTIVE YIELD
BUNCOMBE COUNTY	39.2	38.4	26.9	24.5	37.8	41.2	27.8	24.3
ASHEVILLE CITY	37.3	57.7	38.4	30.8	33.5	63.7	38.1	30.0
CHEROKEE COUNTY	33.7	38.5	23.2	18.6	30.9	39.3	21.7	14.4
CLAY COUNTY	42.4	12.9	9.8	8.9	39.4	28.0	19.7	18.5
GRAHAM COUNTY	36.7	38.7	25.4	22.7	36.9	41.8	27.5	23.2
HAYWOOD COUNTY	38.3	35.4	24.2	22.6	36.1	40.1	25.9	23.0
HENDERSON COUNTY	38.4	42.4	29.1	26.1	37.2	53.1	35.2	31.6
HENDRSNVLLE CITY	42.4	75.4	57.1	54.9	35.9	71.0	45.5	41.2
JACKSON COUNTY	37.3	37.6	25.0	21.9	36.1	51.4	33.1	28.7
MACON COUNTY	40.7	39.0	28.3	26.9	39.9	43.7	31.2	29.6
MADISON COUNTY	36.4	18.4	11.9	10.0	39.8	24.0	17.0	16.2
MCDOWELL COUNTY	34.1	24.8	15.1	12.8	34.1	35.4	21.5	16.9
MITCHELL COUNTY	34.7	38.3	23.7	19.4	30.9	32.4	17.9	13.4
POLK COUNTY	30.2	25.5	13.7	11.1	31.5	27.3	15.4	12.4
TRYON CITY	39.2	54.2	37.9	36.0	34.9	48.3	30.1	27.0
RUTHERFORD COUNTY	39.1	26.5	18.5	17.5	38.2	27.2	18.6	17.2
SWAIN COUNTY	33.9	26.8	16.2	13.8	35.4	30.2	19.1	16.9
TRANSYLVANIA COUN	39.0	48.2	33.5	30.0	33.7	34.5	20.8	18.5
YANCEY COUNTY	30.5	59.8	32.6	19.8	36.5	38.5	25.1	21.6

NOTE: PERCENT OF CLASS IS AN ESTIMATE OF ALGEBRA II PARTICIPATION CALCULATED BY DIVIDING THE TOTAL NUMBER OF ALGEBRA II STUDENTS BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. YIELD IS AN INDEX OF THE EFFECTIVENESS OF AN ALGEBRA II PROGRAM WHICH COMBINES PARTICIPATION AND PERFORMANCE. IT IS CALCULATED BY MULTIPLYING THE PERCENT OF A CLASS TAKING ALGEBRA II BY THE PERCENT OF CORE ITEMS ANSWERED CORRECTLY AND THEN MULTIPLYING BY 100. EFFECTIVE YIELD IS A SIMILAR INDEX WHICH COUNTS AS 'PARTICIPATING' IN ALGEBRA II ONLY THOSE STUDENTS WHOSE ACHIEVEMENT IS ESTIMATED TO BE PASSING.

Table 11

Select Characteristics of Algebra II Students in Public School Systems: 1988

REGION NORTHEAST

REGION REPORT

	NUMBER TESTED	PERCENT OF CLASS	PERCENT OF TENTH GRADE	PERCENT OF ELEVENTH GRADE	PERCENT BLACK	PERCENT ALGEBRA II BLACK	PERCENT LESS THAN HS EDUC	PERCENT ALGEBRA II LESS THAN HS EDUC
BEAUFORT COUNTY	145	42.5	3.5	33.2	41.8	26.9	15.8	4.8
WASHINGTON CITY	145	51.1	8.9	26.5	43.8	29.0	9.5	4.8
BERTIE COUNTY	127	40.1	7.9	29.6	75.8	66.4	28.1	15.0
CAMDEN COUNTY	44	43.6	32.2	15.6	31.2	27.3	21.7	2.3
CHOWAN COUNTY	80	41.2	14.1	16.0	50.9	32.5	12.1	3.8
CURRITUCK COUNTY	53	26.4	2.5	20.7	14.9	9.4	14.5	9.4
DARE COUNTY	88	36.2	7.8	27.6	5.1	5.7	10.6	4.5
GATES COUNTY	66	55.5	9.2	24.8	57.2	50.0	24.6	12.1
HERTFORD COUNTY	91	23.3	0.9	21.0	74.3	64.8	20.8	12.2
HYDE COUNTY	24	31.2	0.0	24.1	49.4	37.5	33.3	12.5
MARTIN COUNTY	210	39.6	15.2	33.1	56.2	46.4	28.6	8.7
PASQUOTANK COUNTY	203	52.2	13.2	26.9	44.8	37.9	14.8	8.4
PERQUIMANS COUNTY	53	37.3	1.4	32.8	43.2	20.8	13.6	7.5
PITT COUNTY	559	42.4	12.6	23.4	50.3	29.4	20.5	5.0
TYRRELL COUNTY	18	29.0	0.0	27.6	48.7	33.3	14.6	33.3
WASHINGTON COUNTY	91	38.4	8.1	24.8	61.0	40.7	29.0	8.9

NOTE: NUMBER TESTED IS THE NUMBER OF STUDENTS WHO TOOK THE ALGEBRA II TEST. PERCENT OF CLASS IS THE TOTAL NUMBER OF ALGEBRA II STUDENTS DIVIDED BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. IT IS AN ESTIMATE OF THE PERCENT OF A COHORT OR CLASS OF STUDENTS WHO WILL TAKE ALGEBRA II BEFORE LEAVING HIGH SCHOOL. PERCENT OF TENTH GRADE IS THE PERCENT OF TENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT OF ELEVENTH GRADE IS THE PERCENT OF ELEVENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT BLACK IS THE PERCENT OF TOTAL ENROLLMENT THAT IS BLACK. PERCENT ALGEBRA II BLACK IS THE PERCENT OF ALGEBRA II STUDENTS THAT IS BLACK. PERCENT LESS THAN HS EDUC IS THE PERCENT OF EIGHTH GRADE STUDENTS TAKING THE CALIFORNIA ACHIEVEMENT TEST IN 1988 WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION. PERCENT ALGEBRA II LESS THAN HS EDUC IS THE PERCENT OF ALGEBRA II STUDENTS WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION.

Table 11, cont'd.

REGION SOUTHEAST

REGION REPORT

	NUMBER TESTED	PERCENT OF CLASS	PERCENT OF TENTH GRADE	PERCENT OF ELEVENTH GRADE	PERCENT BLACK	PERCENT ALGEBRA II BLACK	PERCENT LESS THAN HS EDUC	PERCENT ALGEBRA II LESS THAN HS EDUC
BRUNSWICK COUNTY	224	26.4	8.5	22.4	26.8	20.6	15.0	3.6
CARTERET COUNTY	183	27.1	8.3	16.3	13.3	6.0	14.3	1.1
NEW BERN-CRAVEN	397	34.3	4.1	27.8	36.1	24.7	14.0	4.8
DUPLIN COUNTY	229	33.9	14.0	15.4	42.7	29.3	20.4	10.5
GREENE COUNTY	59	22.6	7.7	19.0	62.1	28.8	33.3	10.2
JONES COUNTY	43	32.6	0.0	27.1	55.6	58.1	12.5	4.8
LENOIR COUNTY	167	29.6	14.1	16.8	32.7	15.0	20.6	7.9
KINSTON CITY	160	36.3	9.3	24.4	77.4	42.5	20.8	2.5
NEW HANOVER COUNT	773	52.9	13.8	22.2	30.0	14.8	11.8	1.8
ONSLOW COUNTY	546	39.8	9.0	27.3	23.1	17.8	12.2	3.5
PAMLICO COUNTY	50	24.5	8.0	19.3	35.2	24.5	13.2	4.0
PENDER COUNTY	117	24.7	5.3	19.2	44.1	28.2	13.6	5.2
SAMPSON COUNTY	197	36.5	5.2	27.3	39.2	30.5	14.4	7.2
CLINTON CITY	55	23.7	1.6	19.5	47.2	29.1	14.0	3.6
WAYNE COUNTY	419	40.4	17.1	17.2	29.3	16.3	10.2	4.1
GOLDSBORO CITY	133	38.1	5.9	17.8	81.9	69.9	16.6	6.0

NOTE: NUMBER TESTED IS THE NUMBER OF STUDENTS WHO TOOK THE ALGEBRA II TEST. PERCENT OF CLASS IS THE TOTAL NUMBER OF ALGEBRA II STUDENTS DIVIDED BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. IT IS AN ESTIMATE OF THE PERCENT OF A COHORT OR CLASS OF STUDENTS WHO WILL TAKE ALGEBRA II BEFORE LEAVING-HIGH SCHOOL. PERCENT OF TENTH GRADE IS THE PERCENT OF TENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT OF ELEVENTH GRADE IS THE PERCENT OF ELEVENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT BLACK IS THE PERCENT OF TOTAL ENROLLMENT THAT IS BLACK. PERCENT ALGEBRA II BLACK IS THE PERCENT OF ALGEBRA II STUDENTS THAT IS BLACK. PERCENT LESS THAN HS EDUC IS THE PERCENT OF EIGHTH GRADE STUDENTS TAKING THE CALIFORNIA ACHIEVEMENT TEST IN 1988 WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION. PERCENT ALGEBRA II LESS THAN HS EDUC IS THE PERCENT OF ALGEBRA II STUDENTS WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION.

Table 11, cont'd.

REGION CENTRAL

REGION REPORT

	NUMBER TESTED	PERCENT OF CLASS	PERCENT OF TENTH GRADE	PERCENT OF ELEVENTH GRADE	PERCENT BLACK	PERCENT ALGEBRA II BLACK	PERCENT LESS THAN HS EDUC	PERCENT ALGEBRA II LESS THAN HS EDUC
DURHAM COUNTY	717	50.9	10.8	29.7	30.9	20.0	9.7	2.7
DURHAM CITY	164	23.1	4.1	18.9	89.6	90.2	20.7	8.5
EDGECOMBE COUNTY	121	24.5	0.5	21.7	60.8	55.4	22.9	9.2
TARBORO CITY	105	42.7	10.5	23.3	53.5	26.7	20.2	4.8
FRANKLIN COUNTY	145	30.0	5.3	36.0	44.9	32.4	14.0	9.0
FRANKLINTON CITY	22	15.3	0.8	20.0	60.9	50.0	38.5	9.5
GRANVILLE COUNTY	199	33.1	13.1	11.2	48.7	39.4	22.6	10.2
HALIFAX COUNTY	131	19.9	12.2	14.9	83.0	82.3	34.7	19.4
ROANOKE RPDS CITY	94	40.9	11.7	23.2	10.6	2.1	17.2	1.1
WELDON CITY	29	31.5	1.0	28.2	88.4	96.6	29.4	14.3
JOHNSTON COUNTY	494	40.8	10.7	27.4	25.4	12.6	17.2	6.1
NASH COUNTY	318	34.7	0.7	27.6	40.5	29.9	18.9	8.3
ROCKY MOUNT CITY	184	41.8	6.8	17.8	77.7	33.9	18.1	4.3
NORTHAMPTON COUNT	115	35.0	6.9	20.8	79.7	65.8	27.2	17.4
VANCE COUNTY	187	33.2	10.5	19.0	56.7	26.7	26.9	8.0
WAKE COUNTY	2874	61.4	15.7	28.7	26.7	13.7	7.5	2.2
WARREN COUNTY	55	17.5	6.3	13.3	73.0	54.5	18.9	11.1
WILSON COUNTY	368	32.3	17.4	14.8	51.4	26.4	26.5	6.5

NOTE: NUMBER TESTED IS THE NUMBER OF STUDENTS WHO TOOK THE ALGEBRA II TEST. PERCENT OF CLASS IS THE TOTAL NUMBER OF ALGEBRA II STUDENTS DIVIDED BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. IT IS AN ESTIMATE OF THE PERCENT OF A COHORT OR CLASS OF STUDENTS WHO WILL TAKE ALGEBRA II BEFORE LEAVING HIGH SCHOOL. PERCENT OF TENTH GRADE IS THE PERCENT OF TENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT OF ELEVENTH GRADE IS THE PERCENT OF ELEVENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT BLACK IS THE PERCENT OF TOTAL ENROLLMENT THAT IS BLACK. PERCENT ALGEBRA II BLACK IS THE PERCENT OF ALGEBRA II STUDENTS THAT IS BLACK. PERCENT LESS THAN HS EDUC IS THE PERCENT OF EIGHTH GRADE STUDENTS TAKING THE CALIFORNIA ACHIEVEMENT TEST IN 1988 WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION. PERCENT ALGEBRA II LESS THAN HS EDUC IS THE PERCENT OF ALGEBRA II STUDENTS WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION.

Table 11, cont'd.

REGION SOUTH CENTRAL REGION REPORT

	NUMBER TESTED	PERCENT OF CLASS	PERCENT OF TENTH GRADE	PERCENT OF ELEVENTH GRADE	PERCENT BLACK	PERCENT ALGEBRA II BLACK	PERCENT LESS THAN HS EDUC	PERCENT ALGEBRA II LESS THAN HS EDUC
BLADEN COUNTY	153	30.1	2.3	23.9	50.4	38.2	16.1	9.9
COLUMBUS COUNTY	157	22.1	5.4	19.6	38.4	24.2	20.5	6.4
WHITEVILLE CITY	104	54.7	16.3	30.3	41.3	21.2	20.3	5.8
CUMBERLAND COUNTY	1387	39.4	8.0	19.8	40.3	28.6	11.4	3.1
HARNETT COUNTY	250	25.3	8.8	16.3	32.0	19.2	23.2	6.1
HOKE COUNTY	142	37.0	5.3	19.3	52.1	43.7	28.7	7.0
LEE COUNTY	201	40.0	7.1	14.9	30.8	17.1	11.0	3.1
MONTGOMERY COUNTY	156	39.9	15.3	27.2	36.2	23.1	21.5	8.4
MOORE COUNTY	244	34.6	6.8	22.4	29.2	20.9	16.3	4.9
RICHMOND COUNTY	255	36.8	10.7	20.0	38.6	25.7	17.0	5.2
ROBESON COUNTY	279	20.6	4.5	18.3	21.3	15.8	28.4	13.8
FAIRMONT CITY	51	32.3	9.2	16.6	50.7	43.1	36.2	11.8
LUMBERTON CITY	160	52.3	12.2	27.8	36.6	18.9	26.4	4.4
RED SPRINGS	46	26.4	0.0	22.9	44.4	41.3	20.3	6.5
SAINT PAULS CITY	28	21.9	0.0	20.0	44.1	25.0	0.0	7.7
SCOTLAND COUNTY	267	43.0	16.1	14.1	44.7	36.0	21.7	9.8

NOTE: NUMBER TESTED IS THE NUMBER OF STUDENTS WHO TOOK THE ALGEBRA II TEST. PERCENT OF CLASS IS THE TOTAL NUMBER OF ALGEBRA II STUDENTS DIVIDED BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. IT IS AN ESTIMATE OF THE PERCENT OF A COHORT OR CLASS OF STUDENTS WHO WILL TAKE ALGEBRA II BEFORE LEAVING HIGH SCHOOL. PERCENT OF TENTH GRADE IS THE PERCENT OF TENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT OF ELEVENTH GRADE IS THE PERCENT OF ELEVENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT BLACK IS THE PERCENT OF TOTAL ENROLLMENT THAT IS BLACK. PERCENT ALGEBRA II BLACK IS THE PERCENT OF ALGEBRA II STUDENTS THAT IS BLACK. PERCENT LESS THAN HS EDUC IS THE PERCENT OF EIGHTH GRADE STUDENTS TAKING THE CALIFORNIA ACHIEVEMENT TEST IN 1988 WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION. PERCENT ALGEBRA II LESS THAN HS EDUC IS THE PERCENT OF ALGEBRA II STUDENTS WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION.

Table 11, cont'd.

REGION NORTH CENTRAL REGION REPORT

	NUMBER TESTED	PERCENT OF CLASS	PERCENT OF TENTH GRADE	PERCENT OF ELEVENTH GRADE	PERCENT BLACK	PERCENT ALGEBRA II BLACK	PERCENT LESS THAN HS EDUC	PERCENT ALGEBRA II LESS THAN HS EDUC
ALAMANCE COUNTY	391	44.7	15.4	20.3	20.4	15.6	18.3	5.4
BURLINGTON CITY	331	58.7	17.5	29.6	33.6	18.4	16.2	3.6
CASWELL COUNTY	96	27.8	7.0	20.6	49.3	43.2	19.0	7.4
CHATHAM COUNTY	183	35.4	5.9	27.5	32.5	22.5	23.6	5.0
DAVIDSON COUNTY	631	47.0	14.0	26.3	3.2	2.1	20.8	8.3
LEXINGTON CITY	102	38.6	18.6	20.6	38.9	25.5	27.1	7.8
THOMASVILLE CITY	69	32.4	14.4	15.2	46.0	40.6	25.5	13.2
FORSYTH COUNTY	1451	49.0	14.0	19.3	36.4	21.3	11.1	3.4
GUILFORD COUNTY	962	47.6	13.8	24.0	17.2	8.8	10.2	4.2
GREENSBORO CITY	1016	59.9	19.0	27.8	50.5	35.9	12.1	2.1
HIGH POINT CITY	253	35.7	16.1	18.5	48.1	28.1	21.3	6.0
ORANGE COUNTY	146	38.8	6.0	24.6	27.6	24.0	17.4	9.6
CHAPEL HILL CITY	227	55.9	21.9	25.9	22.2	5.3	6.3	0.9
PERSON COUNTY	164	36.4	14.8	17.9	37.3	29.6	24.2	8.5
RANDOLPH COUNTY	351	30.9	8.2	22.2	5.9	3.4	23.7	8.9
ASHEBORO CITY	140	47.6	18.7	23.5	15.3	8.6	16.2	2.1
ROCKINGHAM COUNTY	123	37.8	0.4	34.1	21.7	16.3	24.1	8.1
EDEN CITY	139	45.1	13.5	20.7	21.7	9.4	23.1	7.2
WEST. ROCKINGHAM	107	30.5	11.7	16.9	20.6	17.8	22.0	7.5
REIDSVILLE CITY	91	31.3	14.4	13.9	45.9	15.6	22.5	10.0
STOKES COUNTY	210	37.4	13.8	13.7	8.1	6.7	20.4	6.2

NOTE: NUMBER TESTED IS THE NUMBER OF STUDENTS WHO TOOK THE ALGEBRA II TEST. PERCENT OF CLASS IS THE TOTAL NUMBER OF ALGEBRA II STUDENTS DIVIDED BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. IT IS AN ESTIMATE OF THE PERCENT OF A COHORT OR CLASS OF STUDENTS WHO WILL TAKE ALGEBRA II BEFORE LEAVING HIGH SCHOOL. PERCENT OF TENTH GRADE IS THE PERCENT OF TENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT OF ELEVENTH GRADE IS THE PERCENT OF ELEVENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT BLACK IS THE PERCENT OF TOTAL ENROLLMENT THAT IS BLACK. PERCENT ALGEBRA II BLACK IS THE PERCENT OF ALGEBRA II STUDENTS THAT IS BLACK. PERCENT LESS THAN HS EDUC IS THE PERCENT OF EIGHTH GRADE STUDENTS TAKING THE CALIFORNIA ACHIEVEMENT TEST IN 1988 WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION. PERCENT ALGEBRA II LESS THAN HS EDUC IS THE PERCENT OF ALGEBRA II STUDENTS WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION.

Table 11, cont'd.

REGION SOUTHWEST — REGION REPORT

	NUMBER TESTED	PERCENT OF CLASS	PERCENT OF TENTH GRADE	PERCENT OF ELEVENTH GRADE	PERCENT BLACK	PERCENT ALGEBRA II BLACK	PERCENT LESS THAN HS EDUC	PERCENT ALGEBRA II LESS THAN HS EDUC
ANSON COUNTY	185	48.1	12.7	29.3	61.4	47.0	14.3	6.0
CABARRUS COUNTY	492	45.6	15.0	23.4	14.8	7.1	11.5	3.9
KANNAPOLIS CITY	174	45.3	7.6	37.4	27.0	16.7	32.8	8.6
CLEVELAND COUNTY	225	34.3	0.3	18.8	26.0	18.2	29.3	4.0
KINGS MTN. CITY	103	31.7	10.9	20.3	23.1	13.6	21.2	4.0
SHELBY CITY	157	62.1	14.8	31.8	44.2	21.0	15.8	3.2
GASTON COUNTY	915	33.6	6.9	23.8	17.4	11.6	25.0	6.4
LINCOLN COUNTY	298	41.2	8.4	24.7	12.2	6.4	26.1	7.1
MECKLENBURG COUNT	2715	46.6	15.6	22.1	39.2	20.4	12.1	3.0
ROWAN COUNTY	548	51.2	20.5	21.0	16.4	11.7	15.5	7.5
SALISBURY CITY	107	54.6	5.0	29.4	57.2	47.6	13.8	1.9
STANLY COUNTY	142	25.4	12.2	11.4	12.5	6.4	20.9	6.4
ALBEMARLE CITY	53	33.1	15.0	12.7	28.6	5.7	19.1	5.7
UNION COUNTY	353	30.0	11.3	17.6	15.2	7.5	12.5	4.2
MONROE CITY	111	42.5	13.7	20.5	56.2	32.7	25.6	5.5

NOTE: NUMBER TESTED IS THE NUMBER OF STUDENTS WHO TOOK THE ALGEBRA II TEST. PERCENT OF CLASS IS THE TOTAL NUMBER OF ALGEBRA II STUDENTS DIVIDED BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. IT IS AN ESTIMATE OF THE PERCENT OF A COHORT OR CLASS OF STUDENTS WHO WILL TAKE ALGEBRA II BEFORE LEAVING HIGH SCHOOL. PERCENT OF TENTH GRADE IS THE PERCENT OF TENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT OF ELEVENTH GRADE IS THE PERCENT OF ELEVENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT BLACK IS THE PERCENT OF TOTAL ENROLLMENT THAT IS BLACK. PERCENT ALGEBRA II BLACK IS THE PERCENT OF ALGEBRA II STUDENTS THAT IS BLACK. PERCENT LESS THAN HS EDUC IS THE PERCENT OF EIGHTH GRADE STUDENTS TAKING THE CALIFORNIA ACHIEVEMENT TEST IN 1988 WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION. PERCENT ALGEBRA II LESS THAN HS EDUC IS THE PERCENT OF ALGEBRA II STUDENTS WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION.

Table 11, cont'd.

REGION NORTHWEST REGION REPORT

	NUMBER TESTED	PERCENT OF CLASS	PERCENT OF TENTH GRADE	PERCENT OF ELEVENTH GRADE	PERCENT BLACK	PERCENT ALGEBRA II BLACK	PERCENT LESS THAN HS EDUC	PERCENT ALGEBRA II LESS THAN HS EDUC
ALEXANDER COUNTY	162	42.4	10.1	23.1	8.7	5.6	20.2	8.6
ALLEGHANY COUNTY	41	29.7	0.6	30.8	2.8	7.3	17.6	0.0
ASHE COUNTY	137	42.3	27.8	10.8	0.9	0.7	26.7	11.0
AVERY COUNTY	85	34.8	1.0	30.7	0.7	1.2	22.4	10.6
BURKE COUNTY	343	36.1	6.1	26.6	8.4	8.7	21.7	5.6
CALDWELL COUNTY	331	32.4	0.3	35.7	7.8	10.6	24.0	7.9
CATAWBA COUNTY	510	47.3	25.9	21.2	7.8	3.7	17.4	6.3
HICKORY CITY	183	41.5	15.0	25.7	26.4	9.3	22.1	1.6
NEWTON CITY	87	39.9	10.4	19.7	18.1	9.2	15.2	6.9
DAVIE COUNTY	158	38.1	12.6	21.6	10.9	8.9	9.0	2.5
IREDELL COUNTY	355	40.1	17.8	19.5	14.2	11.3	17.1	7.6
MOORESVILLE CITY	110	57.0	36.1	21.3	26.1	12.7	14.9	9.1
STATESVILLE CITY	135	48.9	1.9	36.7	53.6	17.8	25.3	1.5
SURRY COUNTY	194	28.0	7.4	17.8	4.3	3.6	19.9	11.9
ELKIN CITY	54	70.1	18.7	29.9	8.0	7.4	15.6	3.7
MOUNT AIRY CITY	66	48.2	22.3	6.2	12.5	6.1	25.8	9.1
WATAUGA COUNTY	149	38.4	2.4	34.6	1.3	1.3	13.9	0.7
WILKES COUNTY	300	33.3	7.5	18.8	6.0	6.7	24.9	7.8
YADKIN COUNTY	138	33.1	10.6	19.1	5.0	4.3	19.1	5.1

NOTE: NUMBER TESTED IS THE NUMBER OF STUDENTS WHO TOOK THE ALGEBRA II TEST. PERCENT OF CLASS IS THE TOTAL NUMBER OF ALGEBRA II STUDENTS DIVIDED BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. IT IS AN ESTIMATE OF THE PERCENT OF A COHORT OR CLASS OF STUDENTS WHO WILL TAKE ALGEBRA II BEFORE LEAVING HIGH SCHOOL. PERCENT OF TENTH GRADE IS THE PERCENT OF TENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT OF ELEVENTH GRADE IS THE PERCENT OF ELEVENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT BLACK IS THE PERCENT OF TOTAL ENROLLMENT THAT IS BLACK. PERCENT ALGEBRA II BLACK IS THE PERCENT OF ALGEBRA II STUDENTS THAT IS BLACK. PERCENT LESS THAN HS EDUC IS THE PERCENT OF EIGHTH GRADE STUDENTS TAKING THE CALIFORNIA ACHIEVEMENT TEST IN 1988 WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION. PERCENT ALGEBRA II LESS THAN HS EDUC IS THE PERCENT OF ALGEBRA II STUDENTS WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION.

Table 11, cont'd.

REGION WESTERN

REGION REPORT

	NUMBER TESTED	PERCENT OF CLASS	PERCENT OF TENTH GRADE	PERCENT OF ELEVENTH GRADE	PERCENT BLACK	PERCENT ALGEBRA II BLACK	PERCENT LESS THAN HS EDUC	PERCENT ALGEBRA II LESS THAN HS EDUC
BUNCOMBE COUNTY	828	41.2	13.5	21.1	5.6	3.5	16.0	4.5
ASHEVILLE CITY	198	63.7	8.3	35.3	40.9	27.4	16.3	4.6
CHEROKEE COUNTY	131	39.3	18.9	23.3	2.4	1.5	24.1	8.4
CLAY COUNTY	33	28.0	1.1	30.3	1.1	0.0	18.8	9.4
GRAHAM COUNTY	51	41.8	12.6	25.7	0.0	0.0	23.2	3.9
HAYWOOD COUNTY	265	40.1	9.8	19.5	1.9	2.3	19.7	4.5
HENDERSON COUNTY	353	53.1	6.9	28.7	1.5	0.6	17.3	6.3
HENDRSNVLLE CITY	115	71.0	25.5	34.0	26.9	11.4	24.3	5.3
JACKSON COUNTY	164	51.4	13.3	33.6	1.3	0.6	21.0	3.7
MACON COUNTY	121	43.7	11.0	24.6	1.2	0.8	20.6	5.8
MADISON COUNTY	63	24.0	0.0	23.6	0.3	1.6	32.7	12.7
MCDOWELL COUNTY	202	35.4	5.7	26.8	5.2	1.5	13.9	6.5
MITCHELL COUNTY	68	32.4	6.2	22.0	0.1	0.0	26.6	1.5
POLK COUNTY	41	27.3	16.3	17.5	10.1	7.3	23.5	9.8
TRYON CITY	29	48.3	19.0	18.8	22.0	0.0	6.7	3.4
RUTHERFORD COUNTY	238	27.2	7.1	18.7	16.1	11.3	18.1	6.3
SWAIN COUNTY	51	30.2	0.7	31.5	0.5	0.0	13.3	7.8
TRANSYLVANIA COUN	112	34.5	7.5	16.8	7.0	5.4	10.7	7.1
YANCEY COUNTY	101	38.5	35.2	8.7	0.9	1.0	13.9	12.0

NOTE: NUMBER TESTED IS THE NUMBER OF STUDENTS WHO TOOK THE ALGEBRA II TEST. PERCENT OF CLASS IS THE TOTAL NUMBER OF ALGEBRA II STUDENTS DIVIDED BY THE NUMBER OF STUDENTS IN THE NINTH GRADE CLASS. IT IS AN ESTIMATE OF THE PERCENT OF A COHORT OR CLASS OF STUDENTS WHO WILL TAKE ALGEBRA II BEFORE LEAVING HIGH SCHOOL. PERCENT OF TENTH GRADE IS THE PERCENT OF TENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT OF ELEVENTH GRADE IS THE PERCENT OF ELEVENTH GRADE STUDENTS TAKING ALGEBRA II. PERCENT BLACK IS THE PERCENT OF TOTAL ENROLLMENT THAT IS BLACK. PERCENT ALGEBRA II BLACK IS THE PERCENT OF ALGEBRA II STUDENTS THAT IS BLACK. PERCENT LESS THAN HS EDUC IS THE PERCENT OF EIGHTH GRADE STUDENTS TAKING THE CALIFORNIA ACHIEVEMENT TEST IN 1988 WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION. PERCENT ALGEBRA II LESS THAN HS EDUC IS THE PERCENT OF ALGEBRA II STUDENTS WHOSE PARENTS HAVE LESS THAN A HIGH SCHOOL EDUCATION.

Table 12

State Percentile Table for 1987

STATE

NORTH CAROLINA END-OF-COURSE TESTING PROGRAM
ALGEBRA II --- 1987

SUMMARY STATISTICS ON CORE TEST

End of Course Testing

NUMBER OF STUDENTS WITH VALID SCORES	36633	HIGH SCORE	56
		LOW SCORE	3
MEAN	37.7	LOCAL PERCENTILES	RAW SCORE
STANDARD DEVIATION	10.3	90	51
		75	46
VARIANCE	106.0	50 (MEDIAN)	38
		25	30
MEAN PERCENT CORRECT	67.2	10	23

FREQUENCY DISTRIBUTION

RAW SCORE	FREQUENCY	CUMULATIVE FREQUENCY	PERCENT	CUMULATIVE PERCENT	STATE PERCENTILE
56	302	36633	0.82	100.00	99
55	540	36331	1.47	99.18	98
54	724	35791	1.98	97.70	97
53	799	35067	2.18	95.73	95
52	900	34268	2.46	93.54	92
51	984	33368	2.69	91.09	90
50	928	32384	2.53	88.40	87
49	1035	31456	2.83	85.87	84
48	1104	30421	3.01	83.04	82
47	1145	29317	3.13	80.03	78
46	1107	28172	3.02	76.90	75
45	1185	27065	3.23	73.88	72
44	1189	25880	3.25	70.65	69
43	1225	24691	3.34	67.40	66
42	1142	23466	3.12	64.06	62
41	1203	22324	3.28	60.94	59
40	1262	21121	3.44	57.66	56
39	1283	19859	3.50	54.21	52
38	1254	18576	3.42	50.71	49
37	1227	17322	3.35	47.29	46
36	1213	16095	3.31	43.94	42
35	1145	14882	.13	40.62	39
34	1168	13737	3.19	37.50	36
33	1171	12569	3.20	34.31	33
32	1034	11398	2.82	31.11	30
31	1018	10364	2.78	28.29	27
30	998	9346	2.72	25.51	24
29	907	8348	2.48	22.79	22
28	795	7441	2.17	20.31	19
27	806	6646	2.20	18.14	17
26	764	5840	2.09	15.94	15
25	667	5076	1.82	13.86	13
24	592	4409	1.62	12.04	11
23	611	3817	1.67	10.42	10
22	517	3206	1.41	8.75	8
21	444	2689	1.21	7.34	7
20	409	2245	1.12	6.13	6
19	368	1836	1.00	5.01	5
18	334	1468	0.91	4.01	4
17	285	1134	0.78	3.10	3
16	222	849	0.61	2.32	2
LESS THAN 16	627	627	1.71	1.71	1

Table 13

State Percentile Table for 1988

End Of Course Testing

STATE

NORTH CAROLINA END-OF-COURSE TESTING PROGRAM
ALGEBRA II --- 1988

SUMMARY STATISTICS ON CORE TEST

NUMBER OF STUDENTS WITH VALID SCORES	36414	HIGH SCORE	56
		LOW SCORE	3
MEAN	36.2	LOCAL PERCENTILES	RAW SCORE
STANDARD DEVIATION	10.7	90	51
		75	45
		50 (MEDIAN)	36
VARIANCE	113.9	25	28
		10	21
MEAN PERCENT CORRECT	64.6		

FREQUENCY DISTRIBUTION **

RAW SCORE	FREQUENCY	CUMULATIVE FREQUENCY	PERCENT	CUMULATIVE PERCENT	STATE PERCENTILE
56	300	36414	0.82	100.00	99
55	460	36114	1.26	99.18	99
54	631	35654	1.73	97.91	97
53	709	35023	1.95	96.18	95
52	795	34314	2.18	94.23	93
51	770	33519	2.11	92.05	91
50	783	32749	2.15	89.94	89
49	827	31966	2.27	87.78	87
48	884	31139	2.43	85.51	84
47	949	30255	2.61	83.09	82
46	1044	29306	2.87	80.48	79
45	1018	28262	2.80	77.61	76
44	1071	27244	2.94	74.82	73
43	1080	26173	2.97	71.88	70
42	1085	25093	2.98	68.91	67
41	1170	24008	3.21	65.93	64
40	1170	22838	3.21	62.72	61
39	1174	21668	3.22	59.50	58
38	1168	20494	3.21	56.28	55
37	1118	19326	3.07	53.07	52
36	1209	18208	3.32	50.00	48
35	1205	16999	3.31	46.68	45
34	1171	15794	3.22	43.37	42
33	1117	14623	3.07	40.16	39
32	1080	13506	2.97	37.09	36
31	1070	12426	2.94	34.12	33
30	1069	11356	2.94	31.19	30
29	989	10287	2.72	28.25	27
28	942	9298	2.59	25.53	24
27	889	8356	2.44	22.95	22
26	891	7467	2.45	20.51	19
25	874	6576	2.40	18.06	17
24	725	5702	1.99	15.66	15
23	757	4977	2.08	13.67	13
22	563	4220	1.55	11.59	11
21	568	3657	1.56	10.04	9
20	539	3089	1.48	8.48	8
19	472	2550	1.30	7.00	6
18	448	2078	1.23	5.71	5
17	368	1630	1.01	4.48	4
16	309	1262	0.85	3.47	3
15	267	953	0.73	2.62	2
LESS THAN 15	686	686	1.88	1.88	2